



50-54 Red Bank, Manchester EIA Screening and Scoping Report

October 2025

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1 Introduction

- 1.1 This Environmental Impact Assessment (EIA) Screening and Scoping Report (the “Report”) has been prepared in respect of the redevelopment of land at 50-54 Red Bank (“the Site”), part of the Manchester Northern Gateway Strategic Regeneration Framework (2019), now also known as Victoria North (“the SRF”). The proposals are for a new residential-led development (“the Proposed Development”).
- 1.2 The Applicant is LWP Redbank Ltd.
- 1.3 This Report is submitted to request that Manchester City Council (“MCC”) as Local Planning Authority (“LPA”) adopt a Scoping Opinion under Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (“the EIA Regulations”). In accordance with Regulation 15, paragraph 2, this Report contains:
- A plan sufficient to identify the land (included at Appendix 1);
 - A brief description of the nature and purpose of the Proposed Development;
 - An explanation of the likely significant effects of the development on the environment; and,
 - Other supporting information considered relevant to the LPA in adopting a robust Scoping Opinion.

EIA Requirements

- 1.4 The EIA process is the mechanism by which development proposals are appraised in terms of environmental criteria, in addition to socio-economic, engineering, and technical considerations. The EIA process defines the context of the Proposed Development and examines the issues considered relevant to the proposals.
- 1.5 The purpose of the EIA is to establish the nature of the development and the environment in which it is likely to take place to identify likely significant effects on the environment that may arise, by comparing the existing situation at the start of the work (baseline) with the situation once the proposals are in place.
- 1.6 The EIA Regulations require that any Proposed Development falling within the description of a ‘Schedule 2 development’ within the meaning of the Regulations, will be subject to an EIA where such development is likely to have ‘significant’ effects on the environment by virtue of such factors as its nature, size or location (Regulation 2(2)).
- 1.7 The Proposed Development falls under the category of “Infrastructure Projects – Urban Development Projects” (Schedule 2, 10, (b)) as described in the Regulations. The applicable thresholds above which EIA is likely to be required are: (i) the development includes more than 1 hectare of urban development which is not dwellinghouse development; or (ii) the development includes more than 150 dwellings; or (iii) the overall area of the development exceeds 5 hectares.
- 1.8 The indicative thresholds and criteria state that:

“In addition to the physical scale of such developments, consideration should be given to the potential increase in traffic, emissions and noise. EIA is unlikely to be required for the redevelopment of land unless the new development is on a significantly greater scale than the previous use, or the types of impact are of a markedly different nature or there is a high level of contamination”. (Annex: Indicative Screening Thresholds (2015), Planning Practice Guidance: Environmental Impact Assessment)

- 1.9 The Site covers an area of approximately 0.4 Ha and seeks to deliver up to 561 units. The Proposed Development will result in development that is of significantly greater scale and is anticipated to lead to a greater amount and intensity of environmental impacts than the existing situation, which exceeds the threshold in relation to parts (i) listed in Schedule 2, 10, (b) of the Regulations. In addition, the Proposed Development results in development of a greater scale than the existing use. An EIA is therefore considered appropriate to test the likely significant effects of the Proposed Development.

Purpose of the EIA Screening and Scoping Report

- 1.10 As included in Paragraph 1.9 above, it is considered that there are likely to be significant environmental effects on some disciplines. This Report therefore forms a formal Screening request to identify those disciplines that are considered not to give rise to significant effects as detailed in Chapter 5 of this Report.
- 1.11 The process of identifying likely significant effects on the environment which should be addressed by the EIA is termed ‘scoping’ and the results are presented in Chapter 6 of this Report.
- 1.12 Regulation 15 of the EIA Regulations (2017) sets out the process for obtaining a Scoping Opinion from the relevant planning authority.
- 1.13 This Report sets out the approach taken to the topic areas and information that would be contained within the Environmental Statement (‘ES’). Statutory consultees are invited to express their views on the proposed scope of the EIA or suggest additional issues which may be considered to be of significance. The views expressed by statutory consultees will then be used by the LPA to inform the formal EIA Screening and Scoping Opinion, in accordance with Regulation 15(4).
- 1.14 The LPA is requested to respond to the formal request for an EIA Screening and Scoping Opinion within five weeks of registering receipt.

Structure of this Report

- Chapter 2 of this Report provides a site description.
- Chapter 3 outlines the nature of the Proposed Development.
- Chapter 4 sets out the proposed approach and methodology that an ES would take and who might need to be consulted.
- Chapter 5 provides details of those environmental disciplines to be scoped out of the EIA.
- Chapter 6 sets out the key disciplines that would be addressed by the EIA.

2 Site Description

Site Location

- 2.1 The Site is located to the north of Manchester City Centre. It is part of the South Park area of the Northern Gateway Strategic Regeneration Framework (SRF) area, now known as 'Victoria North'. The Site is bound by Red Bank to the west, Red Bank viaduct to the east, Roger Street to the south and vacant parcels of land to the north.
- 2.2 The EIA red line boundary is identified on the Figure 2.1 below as well as Appendix 1.



Figure 2.1 – Site Location Plan (source: Jon Matthews Architect)

Surrounding Land Uses

- 2.3 Land to the north and east of the Site is generally vacant and forms part of wider proposals being delivered by a Manchester City Council and FEC joint venture. Resolution to grant has been received for a residential led development in this area known as Victoria North / the Red Bank Masterplan. This includes homes together with commercial, social and community uses as well as improved green space, including on top of the viaduct structure, and sustainable transport routes. Land to the west and southwest largely comprises of residential accommodation and commercial buildings, with commercial / food and beverage uses contained within the Red Bank arches to the south. Further south lies Victoria Station, a primary rail hub of Manchester.

Site Description

Site Area and Topography

- 2.4 The Site extends to circa 0.4 Ha. There are significant level changes across the Site.

Existing Buildings

- 2.5 The Site is brownfield land and currently comprises of GRUB/COMPLEX, an independent events space, and vacant land.
- 2.6 The Site boundary includes the public footway and partial area of Red Bank.

Trees

- 2.7 The Site contains 1 no. tree, it is partially vegetated with secondary vegetation of limited ecological value. The invasive plant Japanese Knotweed is prevalent across the Site.

Access and Topography

- 2.8 The Site is currently accessed via Red Bank. There is an existing service route which serves GRUB/COMPLEX, providing a route off Red Bank into the southern part of the Site.

Connectivity

- 2.9 The Site is in a highly accessible location via a range of transport modes. Local, regional and national railway services are available from Manchester Victoria Station (c. 13-minute walk from Site). Victoria Station is also the nearest Metrolink Station, providing access to local and regional tram services.
- 2.10 Bus routes run along Cheetham Hill Road, with the nearest bus stop being St Chad's Catholic Church bus stop, which is a c. 4 minute walk away. The buses from this stop provide access to Manchester City Centre, as well as further south to Sale, Bury and Higher Crumpsall. The Site is also a c. 10 minute walk away from Shudehill Interchange, which comprises a Metrolink stop and a bus station. The bus station provides frequent buses to destinations in the north and the west of Greater Manchester including Bury, Middleton, Rochdale, Salford, Eccles, Bolton and the Trafford Centre. There are also national coach services via Flixbus and Megabus. The bus stops on Cheetham Hill Road have at least 10 services per hour.
- 2.11 The Site is in easy walking distance to the shops, amenities and facilities within the City Centre.
- 2.12 The Site has a GMAL (measure of public transport accessibility) of 8, which is the highest possible score.

Site Specific Environmental Designations

Air Quality

- 2.13 The Site lies within approximately 100m of the Greater Manchester Air Quality Management Area (AQMA), referring to an area where air pollution levels are, or are likely to, exceed national air quality objectives.

Ecology

- 2.14 There are no Sites of Special Scientific interest or Special Areas of Conservation ('SAC') located on or immediately adjacent to the Site. The closest, the Rochdale Canal SAC designation is 5.03 km to the east of the Site.

Flood Risk and Drainage

- 2.15 According to The UK Governments Flood Map (Figure 2.2), the Site is majorly located within Flood Zone 1, defined as having a low probability of flooding, meaning there is a less than 1 in 1000 annual probability of river or sea flooding. However, a limited area within the southern border of the Site is located in Flood Zone 2, meaning that the particular area currently used as pavement has a medium probability of flooding from rivers and the sea.
- 2.16 As with the majority of the Regional Centre, the Site is located within the Conurbation Core Critical Drainage Area, as defined in the Manchester, Salford, Trafford Strategic Flood Risk Assessment (SFRA).



Figure 2.2 – UK Government Flood Map. The Site is marked in red



Figure 2.3 – UK Government Surface water drainage map. The Site is marked in red

Heritage

- 2.17 The Site is not located within a Conservation Area. The Cathedral Conservation Area is located 513 m to the south-west of the Site, Shudehill Conservation area is 461m to the south-west of the Site.
- 2.18 The Site also does not contain any designated heritage assets.
- 2.19 There are 19no. Listed Buildings located within 500m of the Site, with the following in the immediate vicinity in order of distance from the Site:
- 1) Roman Catholic Church of St Chad and attached Presbytery, and Boundary Walls (Grade II) – List Entry Number: 1208542
 - 2) St Chad's Cheetham Hill First World War Memorial Cross (Grade II) – List Entry Number: 1485562
 - 3) Former Free Library (Grade II) – List Entry Number: 1293124
 - 4) Knowsley Hotel (Grade II) – List Entry Number: 1197784
 - 5) Cheetham Town Hall (Former) (Grade II) – List Entry: 1208440
 - 6) Cheetham Town Hall Annexe (Former) (Grade II) – List Entry Number: 1283065
 - 7) Union Bridge (Grade II) – List Entry Number: 1255163
 - 8) Charter Street Mission (formerly Charter Street Ragged School and Working Girls' Home) (Grade II) – List Entry Number: 1461979
 - 9) Ashton House (Grade II) – List Entry Number: 1197764
 - 10) Former Synagogue (Grade II) – List Entry Number: 1208420
 - 11) Manchester Jewish Museum (Grade II*) – List Entry Number: 1208420

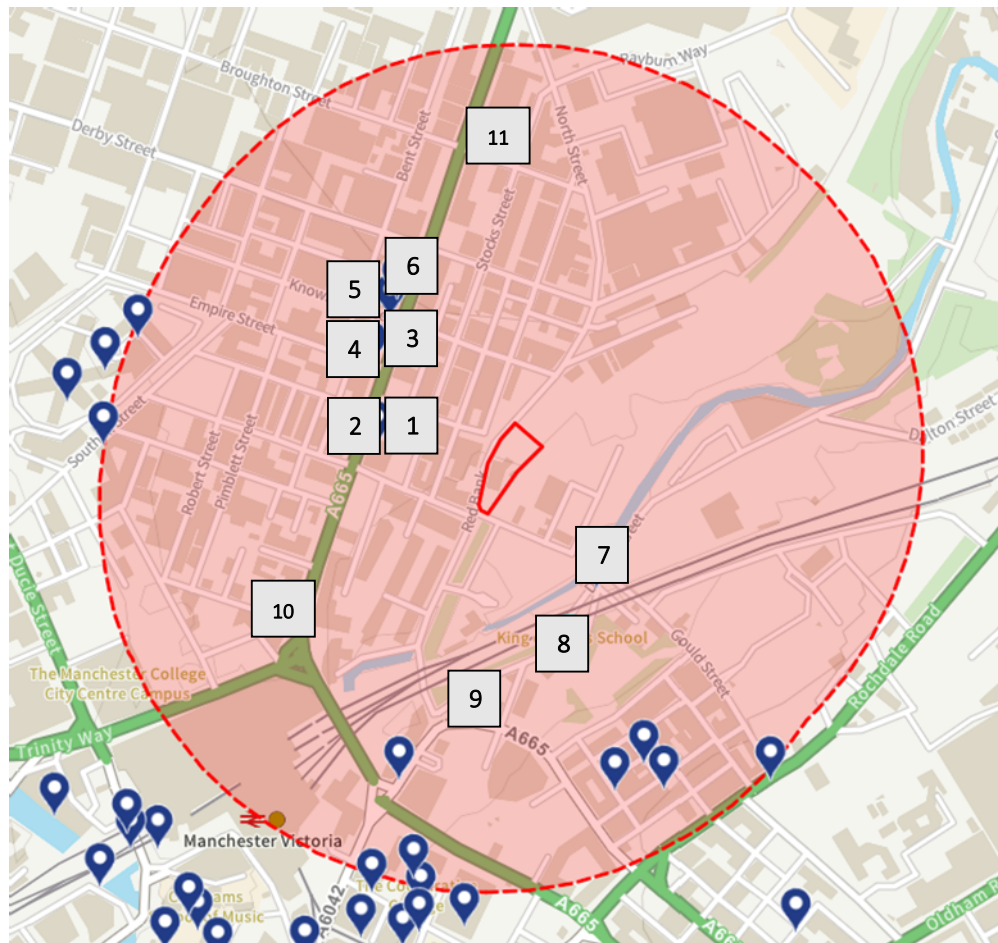


Figure 2.4 – Historic England Listed Asset Map

Planning Policy Allocations and Strategic Frameworks

- 2.20 The Site forms part of North Manchester and Greater Manchester Regional Centre, as defined by the 2012 Manchester Core Strategy Proposals Map. North Manchester's role (Core Strategy Policy C3) has been as predominantly residential, while providing opportunities for employment mainly in Strangeways Employment Area, the City Centre, Central Park, Sportcity, Salford Quays and Trafford Park. There are opportunities to offer mixed use proposals for small businesses providing local employment opportunities. The Site also sits within the Regional Centre which has been identified in the Core Strategy Policy EC3 as suitable for housing which complements the development of mixed-use employment areas.
- 2.21 The Draft Manchester Local Plan (published September 2025), which is currently undergoing consultation, designates the Site as part of Manchester City Centre. Policy SGL2 (Manchester City Centre) outlines that development proposals will be expected to support residential growth where there is no detriment to jobs, in high quality areas. To attract more workers, it encourages provision for high quality and high-density residential development of at least 200no. homes per hectare, to deliver a sustainable pattern of development and 40,000no. new homes from 2023 to 2040.
- 2.22 The Site is located within the South Park area of the Northern Gateway SRF area and plays a key role in the transformation of the SRF area presenting a unique opportunity to revitalise existing communities and provide a catalyst for the regeneration of neighbourhoods in the north of Manchester. This ambitious initiative is transforming the area, creating a vibrant,

sustainable community with over 15,000no. new homes, improved transport links, and extensive green spaces. The SRF identifies the Site for a landmark, distinctive building of scale with a focus on height. The Site is an opportunity to signify a gateway location at the junction of Green Quarter and Victoria North.



Figure 2.5 – Victoria North SRF Masterplan with Site denoted in blue line.)

3 Proposed Development

3.1 The Proposed Development seeks the phased redevelopment of the Site to create 2 residential buildings with ground floor flexible commercial uses (Blocks/Phases A and B) and public realm improvements, including land to the south of the Site (Phase C).

3.2 Two Planning Applications are proposed to be submitted concurrently:

- Application 1: Seeks Full Planning Permission for a residential led development with public realm enhancements and associated works; and,
- Application 2: Seeks Full Planning Permission for landscape works.



Figure 3.1- Site Boundary for Application 1 in red line and site boundary for Application 2 in dotted red line

3.3 The EIA covers both applications.

3.4 The Proposed Development will comprise of the following quantum:

- A residential led development across two blocks of up to 20no. and up to 47no. storeys providing 561no. units with associated amenity.
- Cycle parking and car parking for differently abled users.
- Commercial or retail floorspace (GIA) (uses (Use Class E / Sui Generis)).
- Improvements to Public Realm.

3.5 The quantum of Proposed Development has not yet been fixed and continues to be reviewed alongside technical design development, and so this EIA Screening and Scoping Request is based on realistic parameters of the Proposed Development. These parameters therefore act as a 'worst case' scenario for EIA assessment purposes. Should these parameters be exceeded

or otherwise materially change then the EIA scope would be further reviewed as noted in Chapter 4.

- 3.6 The proposed maximum parameters for the development are set out within Table 3.1, which have been the basis of the analysis as set out in this Report.

Table 3.1 – Development Parameters

Measurement / Detail	Proposed Development Parameter
Site Area	0.4 ha
Proposed Development Height	Block A: G+19 plus plant (AOD + 109,290) Block B: G+46 plus plant (AOD +196,080)
Maximum number of units	561 Units Block A = 139 Block B = 422
Residential Mix	33% 1 Bed / 60% 2 Bed / 6% 3 Bed
Proposed Development Floorspace	Residential (Use Class C3) <u>Block A:</u> GIA = 12,791sqm approx including amenity GIA = 12,523sqm approx excluding amenity <u>Block B:</u> GIA = 37,139 sqm approx including amenity GIA = 36,412sqm approx excluding amenity Commercial/ Retail (Use Class E) <u>Block A:</u> GIA = 232sqm approx. <u>Block B:</u> N/A
Car and Cycle Parking	8no. disabled parking spaces 1no. cycle parking space per apartment
Public Realm	Improvements to public realm

Consideration of Alternatives

- 3.7 Regulation 18(3) and Paragraph 2 of Schedule 4 of the EIA Regulations requires the Applicant to provide an outline of the main alternatives studied and an indication of the main reasons for the choice made, considering the environmental effects.

- 3.8 Additionally, Schedule 4, Paragraph 2 of the EIA Regulations states that an ES should include: “a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”.
- 3.9 In considering the evolution of the Proposed Development, all aspects continue to be evaluated in response to several longstanding strategic objectives and established principles, embedded in local planning policy and guidance.
- 3.10 The following options will continue to be evaluated as the Proposed Development progresses, with full details being provided in the Environmental Statement and the documents that support the forthcoming planning application(s):
- The ‘do nothing’ alternative where the Proposed Development is not progressed.
 - Alternative Locations for the Proposed Developments.
 - Alternative Technologies.
 - Alternative Uses.
 - Alternative Designs (including size and scale) for the Proposed Development.

The “do nothing” Alternative

- 3.11 The “do nothing” scenario refers to the option of leaving the Site in its current use. The Site is brownfield land, which is in part vacant and in part occupied by GRU/COMPLEX who are on a short-term lease. The Site is within the Regional Centre which includes residential as an appropriate use (Core Strategy Policy EC3). Further, it is within the Northern Gateway SRF which includes the Site as appropriate for landmark residential redevelopment. The SRF recognises that the Site, alongside their immediate surroundings, present a significant strategic opportunity to transform a currently underutilised and underperforming area of the City.
- 3.12 The Proposed Development will also deliver extensive and high-quality public realm and will improve pedestrian connections to the wider Red Bank Masterplan and SRF. The regeneration of the Site will bring vitality to the local area, diversify the local demographic and strengthen the local community by enhancing connections with existing nearby neighbourhoods.
- 3.13 The “do nothing” scenario has therefore been discounted due to the long-established aspirations for this key site.

Alternative Locations

- 3.14 The Proposed Development directly addresses the under-utilisation of a strategic site and creates connections to the wider existing and proposed communities. The Site is in a highly accessible location and is identified for redevelopment within the Development Plan and SRF. These characteristics make the Site a highly suitable location for the Proposed Development. The impact of the proposals should therefore be significant in continuing the expansion of City northwards as per the emerging Local Plan.
- 3.15 Therefore, the “alternative location” scenario has been discounted. There is an identified need to redevelop this specific site as a key contributor to the regeneration of the area, supporting further growth in this part of the City.

Alternative Technologies

- 3.16 Energy strategy technologies are being considered and will continue to be considered throughout the cycle of the Proposed Development. The energy strategy and targets are being developed in the context of existing and emerging policy and legislative requirements. The design team is continuously reviewing a range of technologies that seek to ensure the Proposed Development meets, and exceeds where relevant, the policy and regulatory requirements. 'Alternative Technologies' will therefore continue to be considered as the Proposed Development progresses.

Alternative Uses

- 3.17 As noted above, the Site is included in the Development Plan, the Northern Gateway SRF and forthcoming Local Plan as appropriate for residential development. The residential use will contribute significantly to the continuing demand for Manchester to provide quality accommodation to support its economic growth and regeneration. It complements the immediate residential uses in the Green Quarter and forthcoming residential uses as part of the wider Red Bank Masterplan and SRF. A ground floor commercial unit is also proposed, the use of this is to be flexible (Use Class E / Sui Generis) to allow for an appropriate end user to occupy the unit.
- 3.18 Alternative uses have therefore been discounted. The Proposed Development is considered the most appropriate in the context of this location and responds to both identified regeneration priorities as well as housing need in this part of the City.

Alternative Designs

- 3.19 The Site is complex and affected by a physical and logistical constraints, namely significant level differences. A wide range of specialist consultants and other stakeholders continue to provide valuable input into the evolving scheme to inform the design process and assist the team in arriving at an appropriate solution, and that the design development of the Proposed Development has been carried out in close consultation with the Local Planning Authority and statutory, and non-statutory consultees.
- 3.20 Different scales and massing options have been considered for the Proposed Development during initial design development. The aim has been to develop proposals in the context of the SRF (which includes for a landmark building) that will create a viable scheme, addresses strategic policy aims and maximises the benefits of the scheme, particularly in terms of maximising the public realm. The design team, led John Matthews Architects, has considered a number of different development options, and has undertaken detailed analysis to design an appropriate response to the Site's context. This is being informed by expert townscape, heritage, and microclimate advice and assessments.
- 3.21 The height and positioning of the buildings has been influenced by the vision to maximise public realm and create new linkages across the Site. Further the scheme is being carefully designed to ensure that it is deliverable. This has resulted in the taller building being to the north of the Site responding to the Site's gradient. The materiality of the buildings takes cues from the surrounding red brick with final materials and finishes being tested and considered.
- 3.22 The scale, massing and design continues to evolve, within the maximum parameters set out above. This process will continue alongside advice and consultation with the technical team and key stakeholders.

4 Approach to EIA and Proposed Methodology

The Project Team

- 4.1 Regulation 18, Paragraph 5 (a) of the EIA Regulations (2017) requires the ES to be prepared by competent experts. The Applicant has instructed Deloitte to lead and manage the EIA process. Deloitte has significant experience and expertise in managing the EIA process for similar projects to the Proposed Development and holds the IEMA EIA Quality Mark.
- 4.2 As part of the Scoping Exercise, technical input to this EIA Screening and Scoping Report has been provided from the members of the project team, set out in Table 4.1.
- 4.3 All technical assessments in the EIA will be undertaken by a suitably qualified project team to ensure credibility, and coordinated by Deloitte. Table 4.1 also sets out details of the proposed EIA Team.
- 4.4 The following disciplines are proposed to be scoped out of the EIA, as detailed in the Chapter 5:
- Aviation
 - Electronic Interference
 - Transport
 - Archaeology
 - Ecology
 - Water Resources (Flood Risk and Drainage)
- 4.5 It is proposed that the following disciplines will be scoped into the EIA:
- Townscape and Visual Impact
 - Heritage
 - Noise and Vibration
 - Daylight Sunlight and Overshadowing
 - Solar Glare
 - Wind
 - Ground Conditions
 - Air Quality
 - Climate Change
 - Human Health
 - Socio-Economics

Table 4.1 Project and EIA Team

Project Team			
EIA Discipline (Scoped In)	Consultant	Qualifications	Scoped In/Out
EIA Coordinator	Deloitte	MRTPI, MPlan, MSc, BA (Hons) IEMA Quality Mark Registered	N/A
Planning	Deloitte	N/A	N/A
Architecture and Design	Jon Matthew Architects	N/A	N/A
Water Resources, Flood Risk and Drainage	Civic	HND Civil Engineering	Out
Electronic Interference	G-Tech	BEng (Hons) MIET	Out
Aviation	G-Tech	BEng (Hons) MIET	Out
Archaeology	Civic Archaeology	Archaeology BA Archaeology MA	Out
Ecology	Brooks Ecological	MCIEEM	Out
Townscape and Visual Impact	SLHA	BA (Hons), MA (Hons), MSc, IHBC	In
Heritage	SLHA	BA (Hons), MA (Hons), MSc, IHBC	In
Noise and Vibration	Cundall	BSc (Hons) Audio, Video and Broadcast Engineering BSc (Hons) Acoustics Member of the Institute of Acoustics (MIOA) C. Build E MCABE Chartered Building Engineer	In
Daylight/Sunlight/Overshadowing	GIA	LLB (Hons), BSc (Hons), MRICS	In
Solar Glare	GIA	MBSc	In
Wind Microclimate	GIA	MEng, PHD	In
Ground Conditions	LK Group	PhD, BSc (Hons), CSci, IES	In
Traffic and Transport	Civic	BSc	Out
Air Quality	Cundall	Csci, MIAQM, MEnvSc	In
Climate Change	Cundall	Msc, PhD	In

Project Team			
Human Health	Enfusion	BSc MSc CEnv FIEMA	In
Socio-Economics	GC Insight	BA (Hons) Geography, BSc (Hons) Geography, MSc Real Estate, Member of the Institute of Economic Development	In

Approach to Scoping

- 4.6 This Report aims to provide the LPA with sufficient information to inform a clear and agreed scope for the EIA, and ensure a robust assessment of likely significant environmental effects arising from the Proposed Development.
- 4.7 The Scoping exercise has taken account of the proposed construction activities, operational characteristics of the Proposed Development, relevant planning policy, knowledge of the Site, and the professional opinion of the project team.
- 4.8 This EIA Screening and Scoping Report seeks to establish the overall framework for the EIA in relation to the environmental topics and associated likely significant effects that will be subject to detailed assessment. However, iterative re-scoping will continue as the design and strategy is refined, plans and principles are developed, and additional technical survey work informs the final design for the Proposed Development. Any deviation between the scope of effects considered within this EIA Screening and Scoping Report and the ES will be clearly communicated in the ES.
- 4.9 This Report considered firstly whether technical disciplines should be "Scoped In" or "Scoped Out" of the EIA. Based on the information available at the time of writing, where the Proposed Development is not considered to give rise to likely significant effects on the environment, it is scoped out and will not be considered within the ES. Where disciplines are scoped out, a standalone technical assessment will be submitted with the planning application.
- 4.10 In summary, each consultant has advised:
- Whether consultation has taken place.
 - Rationale for scoping out, if applicable.
 - Any background studies which have been completed or baseline information available.
 - Provided the baseline of the Site as relevant to each of the technical areas.
 - Identification of effects which are not significant at both the Construction 'C' and Operational 'O' stages of development and the mitigation proposed.
- 4.11 In addition, for those disciplines which are sought to be scoped in, consultants have provided a headline summary of:
- Baseline data.
 - Assessment methodology for the likely significant effects.
 - Limitations and assumptions (included at Appendix 3(a)).

- 4.12 Scenarios to be tested are set out in full in Appendix 3(b) alongside a matrix outlining which scenarios are to be tested for each discipline.
- 4.13 The following statutory consultees should be consulted through the EIA Screening and Scoping process:
- MCC – Contaminated Land, Environmental Health, Flood Risk, Highways, Tree Officer (Technical Officers);
 - Transport for Greater Manchester
 - Environment Agency (EA);
 - Greater Manchester Police Secure by Design;
 - Natural England;
 - NATS;
 - Greater Manchester Ecological Unit; and,
 - United Utilities.
- 4.14 Early consultation with a number of the above statutory consultees has already been undertaken in order to inform specifics of the design of the Proposed Scheme and to ensure early engagement to ascertain their views on likely significant effects, baseline data collection and appropriate assessment methodologies. The outcomes of those early consultations are reflected in this EIA Report.

Structure and Scope of the ES

- 4.15 The ES would comprise two volumes, Volume 1 would set out the findings with respect to each of the environmental disciplines that have been examined as part of the EIA. Volume 2 would include all the supporting documents and technical appendices relating to the chapters. A Non-Technical Summary (NTS) of the ES will also be produced and form a standalone document.
- 4.16 Overall, the information presented in the ES will be provided in accordance with Schedule 4 of the EIA Regulations (2017) and will include:
- A description of the Proposed Development;
 - An outline of the reasonable alternatives studied and reasons for selecting the chosen option;
 - A description of the aspects of the environment likely to be significantly affected by the Proposed Development;
 - A description of the likely significant effects of the Proposed Development on the environment, including direct and in-direct and in-combination impacts;
 - A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment;
 - A non-technical summary; and,
 - An indication of any difficulties encountered by the applicant in compiling the required information.
- 4.17 The proposed structure of each ES Chapter (Volume 1) is included at Appendix 4. This is considered to be a robust approach and aligns with the EIA Regulations (2017).

EIA Boundary

- 4.18 The geographical coverage of the EIA will be determined by a number of factors including:
- The physical extent of work;
 - The nature of the baseline environment, including the location of sensitive receptors;
 - The distance over which effects will be significant; and
 - The presence and type of “pathways” along which impacts may be spread.

EIA Methodology

- 4.19 The introductory chapters of the ES will provide the following information:
- An introduction to the ES in a legislative and site specific context;
 - Description of the Site and Proposed Development;
 - Alternatives considered and project design evolution;
 - EIA methodology;
 - Construction methodology and programme;
 - Stakeholder engagement;
 - ES structure; and,
 - Details of the EIA project team.
- 4.20 The EIA would assess both the construction and operational phases of the Proposed Development.
- Each ES chapter would follow the headings set out below to ensure the final document is transparent, consistent, and accessible. A reference list will also be provided as relevant with each ES chapter. This is considered to be a robust approach and aligns with the EIA Regulations (2017).

Introduction

- 4.21 This section will introduce the assessment discipline and the purpose for which it is being undertaken.

Assumptions and Limitations

- 4.22 This section will set out any assumptions made in the assessment including potential limitations to the information used.

Relevant Legislative and Policy Context

- 4.23 This section will include a summary of national, regional and local policy and guidance of relevance to the environmental discipline and assessment. Relevant legislation will be summarised where applicable.
- 4.24 In addition, preparation of each ES chapter will consider relevant local and regional, social and economic policies. This will include (but may not be limited to):
- MCC Core Strategy (2012) and Addendum (2024);
 - Manchester Northern Gateway Strategic Regeneration Framework (2019);

- Guide to Development in Manchester – Supplementary Planning Document and Planning Guidance (2007);
- Greater Manchester Combined Authority Places for Everyone Plan (2024); and,
- National Planning Policy Framework (2024).

Assessment Methodology and Significance Criteria

- 4.25 This Chapter will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed.
- 4.26 It will also outline any difficulties encountered in compiling the required information.

Baseline Conditions

- 4.27 This will include a description of the environment as it is currently and as it is expected to change if the project were not to proceed (i.e. 'Future Baseline'). The method used to obtain this information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.
- 4.28 There are two baseline options for the Proposed Development in relation to Phase C.
- 4.29 Phase C is outside of the control of the Applicant and has an implemented consent for a ramped access to the viaduct proposed as part of the Redbank HIF package (application reference 133143/VO/2022 amended by 137079/JO/2023. The two baselines therefore are:
- Existing Baseline (No HIF) this includes the site as existing.
 - Alternative Baseline (with HIF) this includes the HIF ramped access.
- 4.30 Each consultant has reviewed and confirmed which baseline they will be using within their assessment.
- 4.31 Background studies have been completed by all disciplines where relevant to understand the baseline position. These have been undertaken at various stages since project inception in 2023. All consultants have reviewed the date of their background studies and updated where necessary.

Identification and Evaluation of Likely Significant Effects

- 4.32 This Chapter will identify the likely significant effects on the environment resulting from the Proposed Development.
- 4.33 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. The criteria to be used in carrying out this process are detailed below. Where relevant, individual consultants may use a variation of the criteria and this will be clearly explained within the methodology of each chapter.
- 4.34 The Proposed Development is envisaged to be phased as follows:
- Phase A: Block A (South Block)
 - Phase B: Block B (North Block)
 - Phase C: Land to the South.

- 4.35 Each Phase relates to construction (including demolition of existing) and operational phases.
- 4.36 The above represents the current and most likely phasing sequence. However, the Applicant requires flexibility. The Proposed Scheme could be delivered in one phase, or, delivered in a phased approach with any part coming forward at any stage. The Scenarios are listed in Appendix 3 (b) and consultants have considered the development being capable of coming forward at any stage of the development.
- 4.37 Consultants have also considered the combined impacts of phases being on-site concurrently, as well as any potential interrelated impacts (e.g. construction of Block A impacting on operation of Block B, vice versa).
- 4.38 The proposed scenarios to be tested are detailed in full within Appendix 3(b).

Prediction of Impact Magnitude

- 4.39 The methodology for determining the scale or magnitude of change caused by the impact is set out in Table 4.4. The below table represent a standard methodology which all disciplines shall follow unless stated otherwise within Chapter 6. Where the standard methodology is not followed, a discipline specific methodology is detailed within Chapter 6 of this Report.

Table 4.2 Standard Methodology for Assessing Magnitude of Change

Magnitude of Change	Criteria for assessing magnitude of change caused by an impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-development circumstances/situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Prediction of Receptor Sensitivity

- 4.40 The sensitivity of a receptor is based on the relative importance of the receptor using the scale set out in Table 4.3. The below table represent a standard methodology which all disciplines shall follow unless stated otherwise. Where the standard methodology is not followed, a discipline specific methodology is detailed within Chapter 6 of this Report.

Table 4.3 Standard Methodology for Determining Sensitivity

Sensitivity	Examples of receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Assessment of Effect Significance

- 4.41 Effect significance will be calculated using the matrix in Table 4.4. This illustrates the interaction between impact magnitude and receptor sensitivity. The duration of the effect will also be considered and whether it is permanent or temporary.

Table 4.4 Effect Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major	Major - Moderate	Moderate - Minor
	Adverse/Beneficial	Adverse/Beneficial	Adverse/Beneficial
Moderate	Major - Moderate	Moderate – Minor	Minor
	Adverse/Beneficial	Adverse/Beneficial	Adverse/Beneficial
Minor	Moderate – Minor	Minor	Minor - Negligible
	Adverse/Beneficial	Adverse/Beneficial	
Negligible	Negligible	Negligible	Negligible

Mitigation Measures

- 4.42 Adverse effects will be considered for mitigation, and specific measures will be put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions as well as pollution control. The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions.
- 4.43 It should be noted that a distinction will be made between ‘additional’ mitigation and ‘embedded’ mitigation.
- 4.44 Embedded mitigation has been considered as part of the Screening and Scoping exercise with the following embedded mitigation currently proposed: Loading bays inherent in the design to give delivery and servicing vehicles somewhere off carriageway to stop while carrying out duties;

- Development designed to tie into existing and proposed pedestrian and cycle infrastructure adjacent to the site.
- Active ground floor uses to increase natural surveillance, lighting design to provide well-lit pedestrian environment.
- Creation of new habitats on Site within the landscape design.
- Surface water drainage strategy.
- Non-road mobile machinery (NRMM) will be selected to conform to the regulatory requirements.
- All Heavy Duty Vehicle (HDV) construction vehicles will be routed via appropriate and logical transport corridors.
- The scheme will be designed to ensure that the standards are attained with respect to residential accommodation on the Site as stipulated in BS 82331.

4.45 Additional embedded mitigation will be considered as the design progresses.

4.46 The significance will be assessed and an initial conclusion reached prior to the consideration of any additional (add-on) mitigation, and identifying of residual harm.

4.47 The approach to mitigation will follow best practice guidance, which suggests a hierarchical approach whereby effects are avoided, and if not, they are minimised and/or compensated.

4.48 Clear details of when and how the mitigation measures were carried out, or will be carried out, are to be given within the ES. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary.

4.49 The opportunity for enhancement measures will also be considered where appropriate.

Cumulative Effects

4.50 Two types of cumulative effect will be assessed:

- Type 1 Cumulative effects - are the interactions between effects of the construction and development works on a single receptor.
- Type 2 Cumulative effects - are those that arise from incremental changes caused by other past, present or reasonably foreseeable projects together with the development proposals and associated works.

4.51 An assessment of the cumulative effect of the Proposed Development and other committed developments within a defined radius of the Site, including those with recent Planning Permissions and reasonably foreseeable to come forward in the near future, will be undertaken as part of the EIA.

4.52 There is no agreed / standard threshold for how far the assessment should go. Therefore, a professional judgement has been taken regarding which schemes to highlight, taking into consideration the surrounding context of the Site, which may differ between disciplines. This is set out for the relevant disciplines in Chapter 6.

¹ BS 8233: 2014: Guidance on Sound Insulation and Noise Reduction for Buildings

- 4.53 Where schemes are under construction, they have been considered part of the baseline. If applications are approved, subject to a live application reasonably considered likely to be approved, or otherwise reasonably considered likely to come forward, these are included as a committed development to be considered as part of the cumulative analysis. Due professional judgement has been taken regarding the latest status of any schemes included within the list of committed developments. The list of committed developments includes schemes where the construction phase has stalled.
- 4.54 The schedule of committed developments has been agreed with the LPA on 04 August 2025, given the city centre nature of the site a 500m radius has been considered appropriate..
- 4.55 Full details of the committed developments to be included as part of the cumulative effects assessment are set out at Appendix 2.

Residual Effects

- 4.56 The residual effects, i.e. the effects of the Proposed Development assuming implementation of proposed mitigation (both embedded and additional), will be determined. The residual effects represent the overall likely significant effect of the Proposed Development on the environment having taken account of practicable/available mitigation measures.

5 Environmental Disciplines to be Scoped Out of the EIA

Aviation

Summary Analysis

- 5.1 The maximum height of the Proposed Development will be approximately 196.80 m AOD (up to 46-storeys), which exceeds the 90 m AOD aviation safeguarding threshold.
- 5.2 As this threshold has been exceeded, consultation is currently being undertaken with NATS and the Manchester Safeguarding Authority for Manchester Airport to brief them on the proposals. This will be addressed prior to the submission of the application. The consultation will include confirming the final height and location of the building to ensure that appropriate mitigation is designed into the Proposed Development if required and secured by way of a suitably worded planning condition. The Site is also located in Manchester City Centre, approximately 13km to the north of Manchester Airport.

Consultation

- 5.3 Consultation being held with NATS and Manchester Safeguarding Authority.

Rationale for Scoping Out

- 5.4 Significant effects upon aviation operations will be identified prior to the implementation of mitigation. Once mitigation has been implemented, no effects which could be considered significant in the context of EIA regulations will remain. For any potential technical impact, the likely mitigation requirement will be software fix to the radar (for NATS), for any potential flight risk, aviation lighting and / or building height reductions may be required.
- 5.5 Therefore it is considered appropriate for aviation safeguarding to be scoped out. An Aviation Safeguarding Assessment will be issued to accompany the planning application submission.

Electronic Interference

Summary Analysis

Broadband Connectivity

- 5.6 It is probable that good connectivity exists available at the Site, as it is located in a built-up urban environment. It is also anticipated that it will be possible to provide fibre or cable broadband to the Proposed Development. It is anticipated that superfast broadband is already available at the Site, and a broadband connectivity assessment will be undertaken to confirm this. If superfast broadband is not available, FTTP infrastructure should be provided by Openreach or other providers.

TV and Radio Reception

- 5.7 Tall and wide buildings and other structures (tower cranes for example) have the ability to cause interference to the reception of TV (terrestrial and satellite) and radio services. The interference arises from the attenuating properties of the structures, resulting in interference for the receptor (TV viewer or radio listener).

- 5.8 It is likely that sufficient and robust coverage exists in the study area (the area surrounding the Site). This is due to the proximity of the main regional TV transmitter relative to the Site. It is also considered (due to the nature of land use around the Site) that the Proposed Development will present an insignificant effect upon the reception of TV and radio signals.
- 5.9 If interference occurs as a result of the Proposed Development, a number of mitigation solutions exist that will restore the optimal reception of services for any receptor, leaving no long-term residual effects. Such measures would include betterment of the antenna systems, adopting another technology to receive programme content (TV over fibre, broadband or via Smart TV apps) or the use of digital satellite TV reception equipment.

Consultation

- 5.10 No consultation carried out.

Rational for Scoping Out

Broadband Connectivity

- 5.11 It is considered appropriate for broadband connectivity to be scoped out. A Broadband Connectivity Assessment will be submitted with the planning application.

TV and Radio Reception

- 5.12 It is considered appropriate for matters relating to TV and radio reception to be scoped out. Radio and Television Baseline Survey and Reception Impact Assessment – Building Development will be submitted with the planning application.

Archaeology

Summary Analysis

- 5.13 During the medieval and post-medieval periods, the Site likely comprised undeveloped agricultural land to the north of Manchester's historic core, within the township of Cheetham. Historic mapping indicates that by the late 18th century, the Site comprised enclosed fields to the east of Red Bank, whilst the first phases of industrialisation were taking place to the south, close to the River Irk.
- 5.14 Various types of workers' houses were established within the Site in the early to mid-19th century, including single-depth, back-to-back and double-depth terraced houses. In the late 19th century, several houses within the east of the Site were demolished to make way for the Lancashire and Yorkshire Railway line, which runs alongside the east Site boundary. The remaining houses within the site were cleared by 1951 and two modern buildings were later constructed comprising 50-54 Red Bank.
- 5.15 The Site has high potential to contain non-statutory archaeological remains associated with various types of early to mid-19th-century houses, including single-depth and back-to-back houses. The site also has limited potential to contain pre-19th-century relict soils and field boundaries.

Identification of Effects which are not significant

Table 5.1 Field boundaries and relict soils

Effect	Damage to or loss of remains	Applicable Development Phase (C / O)	C	Receptor	Field boundaries and relict soils
Discussion of Effect					
Ground-breaking works have the potential to affect pre-19 th -century field boundaries and relict soils that have been identified within the Site (see Appendix 1). Buried remains of pre-19 th -century field boundaries and relict soils has the potential to address several of the research agendas listed in the North West Regional Research Framework ¹ . Remains of pre-19 th -century field boundaries and relict soils is considered to be of low ² (local) importance based on criteria provided within the ICOMOS guidance ³ .					
Mitigation Committed to in order to Avoid or Reduce Effect					
The remains are likely to be of low sensitivity with a moderate impact therefore the impact on archaeological remains is likely to not be significant.					
Concluding Statement					
Effects on the pre-19 th -century field boundaries is therefore not considered to be significant and will not be considered further in the EIA or reported within the ES.					

Table 5.2 Early 19th-century single-depth houses

Effect	Damage to or loss of remains	Applicable Development Phase (C / O)	C	Receptor	Early 19 th -century single-depth houses
Discussion of Effect					
Ground-breaking works have the potential to affect rows of early 19 th -century single-depth dwellings that have been identified within the Site (see Appendix 1). Buried remains of early 19 th -century single-depth dwellings has the potential to address several of the research agendas listed in the North West Regional Research Framework. Remains of early 19 th -century single-depth dwellings is considered to be of low importance based on criteria provided within the ICOMOS guidance.					
Mitigation Committed to in order to Avoid or Reduce Effect					
The remains are likely to be of low sensitivity with a moderate impact therefore the impact on archaeological remains is likely to not be significant.					
Concluding Statement					
Effects on the early 19 th -century single-depth houses is therefore not considered to be significant and will not be considered further in the EIA or reported within the ES.					

Table 5.3 Back-to-back houses

Effect	Damage to or loss of remains	Applicable Development Phase (C / O)	C	Receptor	Back-to-back houses
Discussion of Effect					
Ground-breaking works have the potential to affect blocks of back-to-back housing, many of which contained cellars, have been identified within the Site (see Appendix 1). Buried remains of back-to-back					

housing has the potential to address several of the research agendas listed in the North West Regional Research Framework.
Remains of back-to-back housing is considered to be of low importance based on criteria provided within the ICOMOS guidance.
Mitigation Committed to in order to Avoid or Reduce Effect
The remains are likely to be of low sensitivity with a moderate impact therefore the impact on archaeological remains is likely to not be significant.
Concluding Statement
Effects on the back-to-back houses is therefore not considered to be significant and will not be considered further in the EIA or reported within the ES.

Table 5.4 Double-depth houses

Effect	Damage to or loss of remains	Applicable Development Phase (C / O)	C	Receptor	Double-depth houses
Discussion of Effect					
Ground-breaking works have the potential to affect double-depth housing, which have been identified within the Site (see Appendix 1). Buried remains of double-depth housing has the potential to address several of the research agendas listed in the North West Regional Research Framework. Remains of double-depth housing is considered to be of low importance based on criteria provided within the ICOMOS guidance.					
Mitigation Committed to in order to Avoid or Reduce Effect					
The remains are likely to be of low sensitivity with a moderate impact therefore the impact on archaeological remains is likely to not be significant.					
Concluding Statement					
Effects on the 19 th -century double-depth houses is therefore not considered to be significant and will not be considered further in the EIA or reported within the ES.					

Consultation

- 5.16 Greater Manchester Archaeology Advisory Service (GMAAS) have been contacted in September 2025 to obtain the Historic Environment Record Data and to discuss the scope of works.

Completed Background Studies

Table 5.5 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
50-54 Red Bank, Manchester, Desk-based Assessment	Archaeological desk-based assessment was completed to assess the nature and significance of the sub-surface archaeological resource	2025
50-54 Red Bank, Manchester, Desk-based Assessment	Archaeological desk-based assessment was completed by Salford Archaeology to assess the	2023

nature and significance of the sub-surface archaeological resource
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Rationale for Scoping Out

- 5.17 Based on the archaeological assessment, the Scheme is not considered to have a significant adverse impact on the archaeological remains. This is because the pre-19th-century field boundaries, relict soils, and 19th-century domestic structures are evaluated as being of low sensitivity with a moderate impact and therefore any potential impact from ground-breaking works will not result in a significant effect.

Transport

Summary Analysis

Pedestrian Access

- 5.18 Pedestrian access to the site can be achieved from Red Bank, which features footways on both sides. Adjacent to the site, the footway is 3 meters wide and 2.5 metres on the west side. To the north of the site, these footways lack tactile paving and consistent dropped kerbs on side streets. The only crossing point north of the site with tactile paving and dropped kerbs is situated about 500 meters away, at the end of North Street.
- 5.19 South of the site, along Red Bank Road, the walking provisions improve, featuring well-maintained surface footways with consistent tactile paving and dropped kerbs at side streets. Approximately 100 meters south of the site, a pedestrian crossing equipped with tactile paving, dropped kerbs, and a refuge island facilitates safe crossing. Access to the A664 road from the west footway of Red Bank, south of the railway tunnel, is available. The A664 road features a signalised pedestrian crossing with dropped kerbs and tactile paving. The junction at A664 road, providing access to Victoria train station and the tram stop, features a signalised pedestrian crossing with a refuge island.
- 5.20 The nearest bus stops from the site are situated on Cheetham Hill Road, located on the west side. The most direct route from the site involves taking the stairs opposite Red Bank Road, providing access to St Chad's Street. St Chad's Street features footways on both sides with an approximate width of 2 meters, but there is a lack of tactile paving and consistent dropped kerbs at side streets.
- 5.21 An alternative route to reach Cheetham Hill Road is through Lord Street, where the south footway has dropped kerbs and tactile paving, while the north footway lacks these provisions. At the end of Lord Street, a signalised pedestrian crossing is available to cross Cheetham Hill Road

Cycle Access and Cycle Parking

- 5.22 No cycling infrastructure is present in the immediate vicinity of the site. There is confirmed Bee Network infrastructure that would run from Lord Street through Roger Street just to the south of the site. An e-bike hire docking station is situated just 150 meters south of the site, providing up to 8 cycles for hire. Additionally, a bike repair shop is available 480 meters from the site on Corporation Street.
- 5.23 The nearest designated cycle route is located 320 meters south of the site, at A664 road, offering an on-road route with other cycling facilities such as advanced stop lines at the junction. The city centre area to the south of the Victoria Station, which is accessible via A664, enforces a 20 mph speed limit. This is expected to encourage people to choose cycling as a mode of transportation. Moreover, ample cycle parking is available in the city centre area

Public Transport

- 5.24 Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e., bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), considering walk access time and service availability. The accessibility index score is categorised into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility. The site and surrounding area score an 8 on the Greater Manchester Accessibility Level (GMAL) scale, this is the highest score possible which indicates the area is highly accessible by public transport.

Bus

- 5.25 The nearest bus stop to the site is located on Cheetham Hill Road (a 5-minute walk from the site). A summary of the services calling at this stop are shown in Table 1. Additionally, the Shudehill Bus station is conveniently located within a 15-minute walking distance from the site, offering access to a range of coaches and buses that serve various routes.

Table 5.6 Bus Services and Frequencies

Route		Peak Frequency (number of buses per hour)		
		Mon - Fri	Saturday	Sunday
41	Middleton - Sale	3 (First bus - 04:33/Last Bus - 23:36)	3 (First bus - 05:50/Last Bus - 23:37)	2 (First bus - 07:06/Last Bus - 22:37)
135	Bury- Manchester	6 (First bus - 04:55/Last Bus - 23:55)	6 (First bus - 05:04/Last Bus - 23:55)	4 (First bus - 06:35/Last Bus - 23:34)

Tram

- 5.26 The nearest tram stop to the site is Shudehill, located a 850m walk from the site. Shudehill is served by three lines, Green, Navy and Yellow. All lines are running at 12-minute intervals on Monday-Saturday and at 15-minute intervals on Sundays. There are about 30 trams per hour serving the stop during peak times.
- 5.27 Victoria tram stop is a 1km walking distance from the site, and is served by five lines, Blue, Green, Navy, Pink and Yellow. All lines are running at 12-minute intervals on Monday-Saturday and at 15-minute intervals on Sundays. There are about 50 trams per hour serving the stop during peak times

Train

- 5.28 The closest train station to the development is Victoria Station, located a 1km walk from the site. Trains can be caught to Manchester Airport, Wigan, Leeds, Liverpool, Newcastle, and stations within Manchester for connections to destinations around the national rail network. At the time of writing (September 2025) 18 trains per hour serve this station. The station offers amenities to enhance accessibility, including step-free access to all platforms for individuals

with mobility challenges. Moreover, it provides monitored cycle parking with a capacity of up to 38 spaces.

- 5.29 The Manchester Piccadilly station is located about 2km south of the site. It serves as the principal rail station of Manchester and hosts intercity and cross-country services, connecting various national destinations such as London, Birmingham, Nottingham, Glasgow, Edinburgh, Cardiff, Bristol, Exeter, Plymouth, Reading, Southampton, and Bournemouth. Additionally, it provides regional services to Northern England destinations, including Liverpool, Leeds, Sheffield, Newcastle, and York, as well as local commuter services within Greater Manchester. About 35-40 trains per hour serve this station

Car Clubs

- 5.30 Enterprise Car Club and Co-Wheels offer a fixed point car club service in Manchester. This scheme enables users to hire a vehicle from a fixed location and return it to the same location at the end of the session. The closest Enterprise Club vehicle is located at New Mount Street, approximately 640 m away from the site. The nearest Co-Wheels car is accessible at Salford, Kings Street, located around 1300 m from the site.

Highway Network

- 5.31 The site is accessible via Red Bank, featuring a 10-meter single carriageway. Red Bank provides entry to A665 through Knowsley Street to the north of the site and Lord Street to the south. Heading south on A665 connects to A6 Trinity Way and Great Ancoats Street, forming, along with Mancunian Way (A57(M)), the Manchester Inner Ring Road that encloses the city centre.
- 5.32 This Inner Ring Road serves as a crucial gateway to major roads, including A62 Oldham Road, A635 Ashton Old Road, A6 London Road, A34 Upper Brook Street, A5103 Princess Parkway, A56 Chester Road, A57 Regent Road, A6 Chapel Street, and A56 Great Ducie Street. These arterial roads, in turn, provide access to the M60 Ring Motorway, creating vital connections to other motorways such as M62, M61, M66, M67, and M56

Car Parking and Traffic Regulation Orders

On-street parking and Traffic Regulation Orders (TROs)

- 5.33 On-street parking along the development frontage is restricted by single yellow lines on both sides of the street, with no waiting between Mon-Fri 8am-6pm and Sat 8am-12:30pm. On-street parking is unregulated in most of the surrounding streets with no traffic regulations/TROs.
- 5.34 Few streets in the area are subject to parking restrictions. The south side of St Chad's Street is controlled by double yellow lines, indicating no parking. Similarly, a major stretch of the north side of Lord Street is restricted by double yellow lines, restricting parking along this stretch. Along North Street, the section north of the roundabout connecting to Rayburn Way and Stocks Street is controlled by double yellow lines on both sides. Additionally, Rayburn Way itself is subject to parking restrictions on both sides, as indicated by the presence of double yellow lines.

Off Street Parking

Table 5.7 Off-street parking spaces near the site along with their respective capacities

Name	Capacity	Distance from site
Red Bank, 17 Faber Street	220	210 m
Total Car Parks Ltd	17	450 m
NCP, Skip Place	35	450 m
SIP Car Parks Ltd, 1 Park Place	17	450 m
Total Car Parks Ltd, Park Place	75	480 m
SIP Car Parks Ltd, Shaw Street	87	550 m
SIP Car Parks Ltd, Trinity Way	95	600 m
SIP Car Parks Ltd, 10 Dutton Street	45	600 m
Total	591	

Collision Data

- 5.35 An analysis of collision data using the website www.crashmap.com has been undertaken. Data was examined for road traffic collisions in the vicinity of the site that took place in the 5-year period to 2023, the most recent year from which data is available. These are summarised in Table 5.8. The total number of incidents have been broken down by severity. In addition, the number of collisions involving pedestrians, cyclists or motorcyclists have been recorded.
- 5.36 Table 5.8 indicates that a significant number of incidents occurred on Cheetham Hill Road, totalling 21, with 4 involving vulnerable users. Notably, the junction of Cheetham Hill Road with North Street and Elizabeth Street witnessed a cluster of 5 incidents, including 1 serious collision involving a motorcycle.

Table 5.8 Collision Data

Location	Incident Severity			Including Vulnerable Road Users			Total Incidents
	Fatal	Serious	Slight	Pedestrian	Cycle	Motorcycle	
Red Bank	1	0	2	0	1	0	3
Cheetham Hill Road	0	5	16	1	2	1	21
Knowsley Street	0	0	1	1	0	0	1
Corporation Street	0	1	1	0	0	0	2
Total	1	6	20	2	3	1	27

Identification of Effect/s which are Not Significant

Table 5.9 Vehicle Drivers/Occupants

Effect	Road vehicle driver and passenger delay	Applicable Development Phase (C / O)	both	Receptor	Vehicle drivers/occupants
Discussion of Effect					
Effect not significant, development is car free (apart from disabled spaces) so new traffic to the network will be minimal. Traffic associated with deliveries and servicing are likely already on the network and will make an additional stop at the proposed development as part of an existing route.					
Mitigation Committed to in order to Avoid or Reduce Effect					
Loading bays provided to give delivery and servicing vehicles somewhere off carriageway to stop while carrying out duties					
Concluding Statement					
Road vehicle driver and passenger delay not a significant effect.					

Table 5.10 pedestrians and Cyclists

Effect	Severance of communities	Applicable Development Phase (C / O)	both	Receptor	Pedestrians and cyclists
Discussion of Effect					
Effect not significant, development is designed to complement existing pedestrian and cycle networks tying into existing and proposed infrastructure to improve connectivity in the area. New walking/cycling connections will be created as part of the proposed development, having a not significant positive effect.					
Mitigation Committed to in order to Avoid or Reduce Effect					
Development designed to tie into existing and proposed pedestrian and cycle infrastructure adjacent to the site.					
Concluding Statement					
Severance of communities not a significant effect.					

Table 5.11 All People

Effect	Fear and intimidation on and by road users	Applicable Development Phase (C / O)	both	Receptor	All people
Discussion of Effect					
Effect not significant, development design to priorities pedestrian movement and include active surveillance through having active frontage at the ground floor. Well-lit public realm will help reduce impacts during darker months.					
Mitigation Committed to in order to Avoid or Reduce Effect					
Active ground floor uses to increase natural surveillance, lighting design to provide well-lit pedestrian environment.					
Concluding Statement					
Fear and intimidation on and by road users not a significant effect.					

Consultation

- 5.37 Manchester City Council Highways Team have been contacted through email correspondence in April 2024 to scope transport assessment (including trip generation). The outcome was the approval of methodology, including trip generation and acceptance of the car-free nature of the development.

Completed Background Studies

Table 5.12 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Baseline transport network study	Review of existing transport networks in the area considering the quality, connectivity, and coverage of networks. Pedestrian, cycle, public transport, car clubs, parking, and highway access are all analysed as well as TRO's and collision data in the area.	Ongoing as part of the Transport Assessment
Parking survey	Parking survey of surrounding streets to understand the occupancy, turnover, and duration of stay of vehicles using the on-street parking available in the area.	09.01.2024
Trip generation	This will be calculated for the Transport Assessment using industry-standard methodology which has been scoped with MCC. This will estimate multi-modal trips to and from the proposed development taking into	Ongoing as part of the Transport Assessment

consideration the car-free nature of the proposals.

Rationale for Scoping Out

- 5.38 The development is designed to be car-free (excluding disabled spaces), resulting in minimal new traffic. Deliveries will use existing routes and dedicated loading bays, scoping out road vehicle driver and passenger delay.
- 5.39 The design integrates with and enhances pedestrian and cycle networks, creating new connections and improving connectivity. It also prioritising pedestrian movement, active ground-floor surveillance, and well-lit public areas. Therefore severance of communities, fear and intimidation on and by road users has also been scoped out

Ecology

Summary Analysis

- 5.40 The Site is comprised of brown field land, partially vegetated with secondary vegetation of limited ecological value with a light industrial unit occupying the remainder of the Site. The site is located within a highly urbanised area on the periphery of Manchester city centre.
- 5.41 The invasive plant Japanese Knotweed is prevalent across the Site. Other than this, ecological constraints have not been identified at the Site and further surveys were not recommended.
- 5.42 The site will be expected to mitigate and/ or offset the loss of some low value habitats as part of its biodiversity net gain obligations.

Identification of Effect/s which are Not Significant

Table 5.13 Loss of low value habitats

Effect	Site clearance	Applicable Development Phase (C / O)	C	Receptor	Loss of low value habitats
Discussion of Effect					
The loss of some low value, ubiquitous habitats via the clearance of the Site to facilitate development.					
Mitigation Committed to in order to Avoid or Reduce Effect					
Inherent mitigation will be included via the creation of new habitats on Site within the landscape design. If required, the need for offsetting will be confirmed once the landscape plan is fixed and post development value of the Site can be calculated within the DEFRA metric.					
Concluding Statement					
The loss of low value habitats is highly unlikely to be significant and can likely be compensated for on site with new habitat creation or offset via standard measures following net gain principles. A minor adverse or positive effect could be achievable depending on the nature of the final designs but either outcome is considered unlikely to be considered significant, given the low value nature of habitats and urban location.					

Consultation

5.43 No consultation has been carried out.

Completed Background Studies

Table 5.14 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Preliminary Ecological Appraisal	Assessment of ecological baseline alongside highlighting the need for any further surveys and potential constraints and opportunities associated with development	18/12/2023
Biodiversity Net Gain Baseline Assessment	Confirms baseline biodiversity unit value of the Site in accordance with the DEFRA metric	18/12/2023

Rationale for Scoping Out

5.44 The loss of low value habitats is highly unlikely to be significant and can likely be compensated for on site with new habitat creation or offset via standard measures following net gain principles. A minor adverse or positive effect could be achievable depending on the nature of the final designs but either outcome is considered unlikely to be considered significant, given the low value nature of habitats and urban location.

Water Resources (Flood Risk and Drainage)

Summary Analysis

- 5.45 The site is located to the north of Manchester City Centre, National Grid Reference SJ 84334 99481, and is approximately 550m north east of Manchester Victoria train station. The postcode is M4 4HF.
- 5.46 The site levels change significantly across the site by circa 7m, with the highest point on the northern boundary and lowest on the southern boundary. The northern boundary of the site lies at ~44.1mAOD, while the southern boundary lies at ~34.5mAOD. The site generally falls in a southern direction.
- 5.47 According to the surveys undertaken, existing drainage infrastructure is laid across the southern section of the site as part of the existing Grub building. This comprises of internal and external drainage pipes and chambers, which connect to a combined drain adjacent to the southern boundary of the site. This drain connects to an existing public sewer owned by United Utilities within Red Bank road. Surface water runoff currently drains from the site at unrestricted rates.

Identification of Effect/s which are Not Significant

Table 5.15 Public Sewers

Effect	Discharge of surface water from site	Applicable Development Phase (C / O)	C/O	Receptor	Public Sewers
Discussion of Effect					
The point of discharge has considered the drainage hierarchy as advised in the National Planning Policy Framework. Infiltration, surface water bodies and surface water sewer methods of disposal have been determined to be unfeasible. Therefore surface water will be disposed via a public combined sewer owned by United Utilities. Surface water must be managed within the site prior to discharge a nearby public sewer. Maximum discharge rates from the site must be agreed with United Utilities. Exceedance of these rates may cause risk of flooding from public sewers, and United Utilities will consequentially not accept discharge into their sewer assets. Surface water runoff is subject to risk of pollution from the building and pavements, and therefore treatment must be considered prior to discharge.					
Mitigation Committed to in order to Avoid or Reduce Effect					
A surface water drainage strategy has been prepared and will form inherent mitigation, where flow controls and attenuation are proposed to ensure that maximum surface water discharge rates restricted to the practicable minimum of 5 l/s prior to discharge into United Utilities public sewer assets. The drainage strategy has considered allowances to account for the potential increase in peak river flows and rainfall intensities due to climate change, as advised by the EA. The proposed drainage strategy will utilise SUDS features such as permeable pavements and rain gardens as a means of surface water collection. The CIRIA SuDS Manual Simple Index Approach (SIA) has been used to confirm that the proposed surface water drainage strategy sufficiently treats potential pollutants during site usage.					
Concluding Statement					
Effect highlighted will be mitigated as part of the proposed drainage strategy as outlined above.					

Table 5.16 Local Area

Effect	Assessment of Flood Risk	Applicable Development Phase (C / O)	[C/O]	Receptor	Local Area
Discussion of Effect					
The flood risk posed to the site must be assessed prior to development. Flooding can result from numerous natural and artificial sources. Potential sources of flooding include fluvial, surface water, groundwater, sewers and reservoirs.					
Mitigation Committed to in order to Avoid or Reduce Effect					
A flood risk assessment has been prepared for the site. The report provides a full and robust assessment of flood risk posed to the planned development, or resulting from the development and to identify any mitigation measures that may be required. According to EA flood mapping, the site is located in Flood Zone 1. The proposed development is considered to be 'more vulnerable' and is therefore considered an acceptable development for the site. A review of EA and SFRA data indicates that all sources of flooding – including fluvial, surface water, groundwater, sewers, and reservoirs – are deemed low risk. Therefore no mitigation measures are required, outside of the surface water drainage strategy which will manage with rainfall falling on the site.					

As all sources of flooding are considered low risk, a change to site levels will not impact flood risk elsewhere.

Concluding Statement

Effect highlighted has been assessed and has been deemed low risk from all sources. The proposed development is not expected to have a detrimental impact on flood risk in the area

Consultation

5.48 United Utilities was consulted on 18th November 2022 and 12th March 2024 regarding points of connection and flow rates for discharge of surface water from the site.

Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Topographic Survey	Survey of Levels and Existing Site Features	November 2022
CCTV Survey	Survey of Existing Drainage Assets	January 2024
EA Flood Maps for Planning	Assessment of the flood risk for rivers and sea, surface, ground, and tidal flooding according to EA modelling and records.	March 2025
National Planning Policy Framework	National guidance to local authorities on planning requirements for proposed developments	April 2024
Manchester City, Salford City and Trafford Councils SFRA	Assessment of the flood risk from all sources now and into the future for the Greater Manchester area.	April 2024
Environmental Agency Climate Change Allowances	Guidance on peak river flow allowances and peak rainfall allowances, respectively. These allowances account for the potential increase in peak river flows and rainfall intensities due to climate change.	April 2024

Rationale for Scoping Out

5.49 Regarding discharge of surface water from site, the effect highlighted will be mitigated as part of the proposed drainage strategy. Regarding flood risk, the effect highlighted has been assessed and has been deemed low risk from all sources. The proposed development is not expected to have a detrimental impact on flood risk in the area. Therefore, water resources has been scoped out.

6 Environmental Statement Chapters

6.1 The proposed scope of the EIA is set out in the below Chapter. Each consultant has followed the Scoping Template as issued by Deloitte, the EIA Co-ordinator.

6.2 The list of proposed technical ES Chapters is set out as follows.

- Air Quality
- Climate Change
- Daylight Sunlight and Overshadowing
- Ground Conditions
- Heritage
- Human Health
- Noise and Vibration
- Socio-Economics
- Solar Glare
- Townscape and Visual Impact
- Wind

Air Quality (Cundall)

Consultation & Available Information, & Baseline Conditions

6.3 Consultation Manchester City Council Environmental Health team was consulted on 11th September 2025 through email correspondence to discuss the scope and methodology for the Air Quality Assessment.

6.4 A response was received on the 17th of September, which confirmed acceptance of the proposed scope and methodology. It also highlighted the requirement of providing an assessment of PM2.5 and PM10, including a future occupier exposure assessment with recommended mitigation measures, such as mechanical ventilation with clean air intakes/filters, detailing their placement, specification, and maintenance. Confirmation of the development's car-free status to be included, with a provision for EV charging recommendations based on guidance if car parking is later introduced. Additionally, recommendations for controlling dust during the demolition and earthworks phases are also necessary. No Further consultation is required pre-submission of the application.

Completed Background Studies

Table 6.1 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Evaluation of relevant legislation, policy and guidance	A review of relevant legislation, applicable regional and local policy and guidance documents relevant to air quality.	03/09/2025
Evaluation of local air quality monitoring	A review of the Council run automatic and non-automatic air quality monitoring results for monitoring locations within 2km of the Site across recent years.	03/09/2025
Evaluation of Defra background pollutant concentration mapping	A review of Defra's predicted background concentrations for the grid square containing the Proposed Development, as well as the grid squares immediately surrounding the Site.	03/09/2025
Evaluation of local sources of industrial pollution	A review of Part A and Part B processes within 2km of the Site.	03/09/2025
Evaluation of local sources of transport related emissions	A review of potential sources of traffic related emissions within 2km of the Site, i.e. significant roads, railway lines, airports etc.	03/09/2025
Evaluation of sensitive receptors	A review of sensitive human and ecological receptors surrounding the Site that could be impacted by the Proposed Development.	03/09/2025

Baseline Conditions

- 6.5 A review of legislation, policy and guidance relevant to air quality was carried out and is summarised in Appendix 5.
- 6.6 To identify the existing baseline air quality conditions, a review of publicly available information has been undertaken, including the latest local authority air quality reports, monitoring data, and background concentration maps. The Proposed Development lies within approximately 100m of the Greater Manchester Air Quality Management Area (AQMA). The position of the Proposed Development in relation to the AQMA is illustrated in drawing RED-CDL-XX-XX-D-AQ-40801.

- 6.7 A review of the most recent Annual Status Report (ASR) from Greater Manchester Combined Authority² showed that Manchester City Council (MCC) operates two automatic monitoring stations³ with 2km of the Proposed Development. Roadside Site MAN09, which went live on 25th September 2022 and urban centre MAN3. The Clean Air Greater Manchester website shows that Manchester has over 400 diffusion tubes monitoring NO₂ in Greater Manchester, 15 of which are within 2km of the Proposed Development. The location of the automatic monitors and diffusion tubes within 2km are shown in drawing RED-CDL-XX-XX-D-AQ-40802 and RED-CDL-XX-XX-D-AQ-40803. The latest monitoring data is shown in Table 6.2-6.5. Exceedances of the air quality objectives are shown in **bold**.

Table 6.2 Automatic Monitoring Sites Within 2km - NO₂ Data

ID	Site Address	Location			Type	Annual Mean NO ₂ Concentration (µg/m ³) (number of hourly exceedances of 200µg/m ³ indicated in brackets)				
		X	Y	Z		2020	2021	2022	2023	2024
MAN09	Manchester Bridge St	383556	398292	1.4	Roadside	-	-	-	53.5 (10)	51.9 (3)
MAN3	Manchester Piccadilly	384310	398337	4	Urban Centre	27 (0)	30 (0)	29 (0)	26.8 (0)	27.0 (0)

Table 6.3 Automatic Monitoring Sites Within 2km - PM₁₀ Data

ID	Site Address	Location			Type	Annual Mean PM ₁₀ Concentration (µg/m ³) (numbers of daily exceedances of 50µg/m ³ indicated in brackets)				
		X	Y	Z		2020	2021	2022	2023	2024
MAN3	Manchester Piccadilly	384310	398337	4	Urban Centre	15 (1)	15 (2)	17 (4)	15.1 (1)	14.8 (0)

Table 6.4 Automatic Monitoring Sites Within 2km - PM_{2.5} Data

ID	Site Address	Location			Type	Annual Mean PM _{2.5} Concentration (µg/m ³)				
		X	Y	Z		2020	2021	2022	2023	2024
MAN3	Manchester Piccadilly	384310	398337	4	Urban Centre	8	9	10	8.5	8.5

Table 6.5 Diffusion Tube Sites Within 2km - NO₂ Data

ID	Site Address	Location		Type	Annual Mean NO ₂ Concentration (µg/m ³)				
		X	Y		2020	2021	2022	2023	2024
MA9ANO	9A	384601	398303	Kerbside	32.5	35.7	37.5	36.2	33.8
MA24NO	24	383968	398070	Kerbside	26.8	31.8	32.4	29.8	27.2
MA26ANO	26A	383973	398874	Urban Background	22.9	25.9	27.5	24.5	24.6
MA29ANO	29A	384119	397503	Roadside	39.0	44.8	49.8	49.6	51.3
MA36NO	36	385203	399750	Roadside	24.3	26.7	27.4	28.0	-

² Greater Manchester Combined Authority (2025) 2024 Air Quality Annual Status Report, June 2025

³ Automatic or continuous monitoring involves drawing air through an analyser continuously to obtain near real-time pollutant concentration data

MA59NO, MA60NO, MA61NO	61	384310	398337	Urban Background	22.4	24.6	25.3	24.4	24.4
MA71NO	71	385161	398290	Roadside	31.4	34.2	34.4	30.7	29.0
MA88NO	88	384469	398981	Kerbside	30.1	36.8	35.7	32.7	30.3
MA99BNO	99	385400	399245	Roadside	26.9	32.9	32.7	31.3	27.5
MA103BNO	103	385431	400653	Roadside	35.5	39.6	40.1	37.9	35.4
MA104BNO	104	383511	399906	Roadside	30.6	36.4	37.9	34.5	31.1
SA27NO	Trinity Way	383078	398741	Roadside	26.7	28.8	27.2	24.6	24.0
SA39NO	Trinity Way/ Chapel Street	383040	398563	Roadside	30.4	33.0	35.1	27.8	-
SA79NO	Chapel Street	382602	398519	Roadside	27.3	30.0	30.8	29.5	28.5
SA83NO	Bury New Road	382945	400732	Roadside	-	25.2	25.5	23.2	19.9

- 6.8 These automatic monitoring results show that the NO₂ annual mean air quality objective (40µg/m³) was exceeded at the roadside site MAN09 in 2023 and 2024 but not exceeded at the automatic urban centre site MAN3 between 2020 and 2024. The number of hourly exceedances of 200µg/m³ were below the permissible 18 days at both sites. There were also measurements of PM₁₀ and PM_{2.5} concentrations within 2 km of the Proposed Development (see Table 6.3 and 6.4). These results from the automatic urban centre site MAN3 show that the PM₁₀ and PM_{2.5} annual mean air quality objectives (20µg/m³ and 40µg/m³, respectively) were not exceeded between 2020 and 2024. The number of daily PM₁₀ exceedances of 50µg/m³ were well below the permissible 35 days. The Greater Manchester Combined Authority (GMCA), including MCC, has pledged to achieve the WHO air quality guideline for PM_{2.5} of 10 µg/m³ by 2030. Results from the MAN3 site in 2024 indicate this target is achievable.
- 6.9 Of the 15 diffusion tube monitoring locations within 2 km, two of the sites exceeded the NO₂ objective (40 µg/m³) during the period between 2020 and 2024. The maximum recorded concentration in was 51.3µg/m³, recorded at site MA29ANO in 2024, which is a roadside site located on Oxford Street (A34). Sites MA36NO and MA104BNO are the roadside sites located closest to the Site. Concentrations at both of these sites have remained below the annual mean objective during 2020 to 2024. As the Proposed Development is not located alongside or near to an A-road, it is anticipated that annual mean NO₂ concentrations will be lower than those recorded at sites MA29ANO, MA36NO and MA104BNO and therefore are expected to be compliant with the annual mean objective. The annual mean NO₂ concentrations recorded at all of the 15 sites within 2 km between 2020 and 2024 are below 60 µg/m³. Exceedances of the short-term objective are therefore considered to be unlikely.
- 6.10 Defra publishes background pollutant mapping for every 1km x 1km OS grid square across the UK for NO_x, NO₂, PM₁₀ and PM_{2.5}. Background pollutant mapping has been reviewed for the grid square in which the Proposed Development lies and surrounding grid squares. The background concentrations (which are based on 2021 monitoring data) are presented in Table 6.6. Defra

background concentrations are all below the air quality objectives for annual mean NO₂ and PM₁₀ and PM_{2.5}.

Table 6.6 Defra's 2025 background concentrations of NO_x, NO₂, PM₁₀ and PM_{2.5}

OS Grid Square		Annual Mean Concentration (µg/m ³)			
X	Y	NO _x	NO ₂	PM ₁₀	PM _{2.5}
		2025	2025	2025	2025
384500	399500	25.34	18.03	13.38	7.76
384500	400500	21.25	15.50	12.95	7.60
383500	399500	24.52	17.53	13.13	7.63
385500	399500	23.19	16.71	13.14	7.73
384500	398500	31.14	21.45	14.30	7.96
Average:		25.09	17.84	13.38	7.74

- 6.11 A review of the Environment Agency Pollutant Inventory for 2023⁴ indicated that there are no Part A permit sites within 2 km of the Proposed Development. The closest Part A site to the Proposed Development is located 2.8 km south, and is operated by University of Manchester, handling radioactive sources. The Part B processes are regulated and reviewed by the Local Authorities and given the nature of these processes, are unlikely to significantly affect ambient air quality in the vicinity of the Proposed Development. Any emissions from these installations are assumed to be represented in the Defra background concentrations.
- 6.12 There are railway lines located approximately 150 m from the Proposed Development and Manchester Victoria Station is located approximately 450 from the Site. These are identified within LAQM (TG22)⁵ as rail lines with a heavy traffic of diesel passenger trains, which includes Manchester Victoria to Salford and to Leeds via Stalybridge, Huddersfield and Deansgate. However, as per the LAQM (TG22) guidance, the Site would not be an area of relevant exposure due to its location >30 m away from these railway lines. Therefore, contributions from rail emissions are expected to have a significant impact on the Site and their contribution to local air quality is assumed to be included within the Defra background concentrations.
- 6.13 Sensitive receptors near the development were identified with reference to publicly available mapping data. The Site is located within a densely urbanised area. There are several properties surrounding the Site including both, commercial, but also residential properties, such as apartment, hotels and residential estates. Commercial properties include, but are not limited to, Redbank House, Bamboo Noodle Box, GRUB, The Shaw Centre and Dekbed UK Limited. Residential properties include Britton House apartment building and City Gate Suites. There is therefore the potential for a high number of sensitive receptors to experience potentially significant effects as a result of the Proposed Development.

⁴ Environment Agency, Pollution Inventory <https://data.gov.uk/dataset/cfd94301-a2f2-48a2-9915-e477ca6d8b7e/pollution-inventory>

⁵ Defra (2022) Local Air Quality Management Technical Guidance (TG22) August 2022 <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>

- 6.14 Defra MAGIC mapping⁶ has been reviewed to determine the presence of any sensitive ecological sites⁷. There are no designated ecological receptors with 2 km of the site boundary. The Cliff/Kersal Dale Local Nature Reserve (LNR) is located approximately 2.5 km north-west of the Proposed Development.

Scope of Assessment

Identification of Effect/s which are Not Significant

Table 6.7 Identification of effects which are not significant

Effect	Construction NRMM emissions	Applicable Development Phase (C / O)	C	Receptor	Receptors within 250m of the Site
Discussion of Effect					
Non-road mobile machinery (NRMM) has the potential to affect receptors within 250m of the Site due to emissions to air.					
Mitigation Committed to in order to Avoid or Reduce Effect					
NRMM will be selected to conform to the regulatory requirements ⁸ .					
Concluding Statement					
The effects of emissions from construction phase NRMM are not expected to be significant as all NRMM will be required to conform to the regulatory requirements.					

Identification of Effect/s which are Likely to be Significant

Table 6.8 Identification of effects which are significant

Effect	Receptor	Applicable Development Phase (C / O)
Construction dust	Receptors within 250m of the site boundary and 50m of the construction vehicle trackout route. Receptors include residential (high sensitivity, would include any receptors already introduced as part of completed phases), commercial (medium sensitivity) and busy pavements (low sensitivity).	C

⁶ Department for Environment, Food and Rural Affairs (Defra) (2019). MAGIC <https://magic.defra.gov.uk/MagicMap.aspx>

⁷ Typical ecological receptors of significance include Special Conservation Areas (SACs), Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs), RAMSAR sites, Local Nature Reserves with dust sensitive features.

⁸ HMSO (2018) The Non-Road Mobile Machinery Type-Approval and Emission of Gaseous and Particulate Pollutants Regulations 2018, UK Statutory Instruments, 2018 No. 764, <https://www.legislation.gov.uk/uksi/2018/764/made>

Construction vehicle emissions	Receptors within 50 m of the trackout route. Receptors include residential (high sensitivity, would include any receptors already introduced as part of completed phases), commercial (medium sensitivity) and busy pavements (low sensitivity).	C
Operational traffic emissions	Potential extent of receptors impacted will depend on outcome of further assessment within the ES Chapter.	O
Operational combustion plant emissions	Potential extent of receptors impacted will depend on outcome of further assessment within the ES Chapter. Screening of energy design details will be carried out to determine the need to assess the impact of emissions from any on-site combustion plant.	O
Human exposure to poor ambient air quality	Future users of the Proposed Development.	O

Assessment Methodology for Likely Significant Effects

- 6.15 The methodology for the assessment of potentially significant effects arising from the construction and operation of the Proposed Development is discussed further in this section.
- 6.16 As a result of the proposed phasing, where applicable the scenarios to be assessed will cover the worst-case potential significant effects as follows:
- Scenario 1: Existing Baseline (existing Site);
 - Scenario 5: Baseline (existing Site, not HIF) + Phase A + Phase B + Phase C (in any order);
 - Scenario 5a: Baseline (existing Site, not HIF) + Phase A + Phase B + Phase C (in any order) + Cumulative.

Construction Dust

- 6.17 The demolition and construction works associated with the Proposed Development have the potential to generate dust, giving rise to effects on dust soiling and human health, especially through the generation of particulate matter. The generation of dust on Site has the potential to cause adverse air quality effects where there are human receptors within 250m and ecological receptors within 50m of the Site. A Construction Dust Assessment in line with the IAQM guidance⁹ has therefore been scoped in. An assessment of ecological receptors has been

⁹ Institute of Air Quality Management (IAQM) (2024) Guidance on the Assessment of Dust from Demolition and Construction (Version 2.2) <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf>

scoped out of the construction dust assessment, as there are no sensitive ecological receptors within 50m of the Proposed Development.

Construction Vehicle Emissions

- 6.18 Construction traffic accessing the Site during the demolition and construction period will result in a temporary increase in vehicles on the local road network. This will result in increased vehicle emissions, and the potential for trackout of dust generated from construction activities. Screening of construction traffic data in line with the applicable Environmental Protection UK (EPUK)/ IAQM's criteria¹⁰ to determine the need for a detailed assessment has therefore been scoped in. Should the criteria be exceeded, in particular if the construction periods overlaps, a detailed assessment would need to be carried out using detailed dispersion modelling.

Operational Traffic Emissions

- 6.19 During operation, the Proposed Development has the potential to effect local air quality as a result of traffic exhaust emissions associated with vehicles travelling to and from the Proposed Development. Screening of operational traffic data (obtained from the transport consultant) to determine the need for detailed assessment has therefore been scoped in. Should screening of data indicate the need for a detailed assessment of operational traffic emissions on nearby receptors, this would be carried out using ADMS modelling software. Given the lack of proposed parking within the Proposed Development, it is anticipated that screening of traffic data in accordance with EPUK/IAQM criteria¹⁰ would mean that the impact of operational traffic on nearby sensitive receptors can be scoped out.

Operational Combustion Plant Emissions

- 6.20 Typically, any combustion plant where the NO_x emission rate is less than 5 mg per sec (mg/s) is unlikely to give rise to significant effects on air quality, provided that the emissions are released from a vent or a stack in a location and at a height that provides adequate dispersion. Should a centralized gas fired energy plant and/or diesel generators be proposed for the site, these will be screened for the need to carry out detailed assessment, in accordance with criteria listed in EPUK/IAQM guidance¹⁰. Should emission rates be predicted to exceed 5 mg per sec (mg/s), a screening assessment will be undertaken to calculate the worst-case estimation of process contribution (PC) to air following the Defra and Environment Agency (EA)'s air emission risk assessment methodology. Short and long-term PCs will be calculated for nitrogen dioxide (NO₂) for comparison with short and long-term objectives. Should the screening results not meet the criteria for insignificant impact, detailed dispersion modelling may be required.

Human Exposure to Poor Ambient Air Quality

- 6.21 The baseline conditions were established qualitatively by reviewing relevant air quality information that is readily available from the Local Authority, including Annual Status Reports and historic monitoring data. These data were used to understand current/baseline pollutant concentrations at receptors within the study area, and the risk that any changes in air quality may cause exceedance of AQOs at these locations. The baseline assessment will be reviewed and updated where necessary as part of the ES Chapter.
- 6.22 Potential exposure of future occupants of the site will be considered in accordance with Defra Local Air Quality Management (LAQM) Technical Guidance (TG22)^{Error! Bookmark not defined.} and EPUK/IAQM Planning Guidance¹⁰. This assessment evaluated the exposure that future

10 Environmental Protection UK (EPUK)/Institute of Air Quality Management (IAQM), (2017) Land-Use Planning & Development Control: Planning for Air Quality <https://iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

occupants or visitors might experience associated with existing baseline conditions, considering the following:

- The background and future baseline air quality, and whether this will be likely to approach, or exceed, the threshold values set by the air quality objectives;
- The presence and location of air quality management/focus areas as an indicator of local hotspots where the air quality objectives may be exceeded;
- The presence of any heavily trafficked roads, with emissions that could give rise to significantly higher concentrations of pollutants (e.g., NO₂), that would cause unacceptably high exposure for users of the new development; and,
- The presence of non-road transport sources that may be significant, such as nearby airports, railway lines with high traffic usage of diesel locomotives or coal-fired steam locomotive railway lines.

Climate Change (Cundall)

Consultation & Available Information, & Baseline Conditions

Consultation

6.23 No consultations will take place with external parties prior to submission of the application.

Completed Background Studies

6.24 No applicable details of anything undertaken prior to this EIA Scoping Process to date

Baseline Conditions

- 6.25 The study area is focused on the Site for two new residential buildings proposed for 50 - 54 Redbank project. The Proposed Development falls within the jurisdiction of Manchester City Council. The boundary line of the study area may not be directly impacted but urban public realm beyond our site boundary is to be considered. The designation for the baseline and cumulative schemes (scoped in / out) are further detailed in sections below.
- 6.26 The baseline will be based on industry standard carbon footprint values. The plot currently holds a 1-2 storey building, housing multiple relatively small units, including a bar and a cinema. It therefore cannot be assumed that the Greenhouse Gas (GHG) baseline is 0; appropriate assumptions will be made regarding the operational energy and all other contributors to the GHG baseline of the development site in its current state. Said building currently on site will be demolished before the project is built. Other baseline cases have been scoped out from this assessment due them not being considered as directly contributing to the development's GHG emissions. Cundall will be carrying out a Whole Life Embodied Carbon (WLEC) assessment for the Proposed Development which will inform the writing of the Environmental Statement (ES) Chapter.

Whole Life Embodied Carbon Assessment – GHG Emissions

Product and Construction Phase

- 6.27 The Construction Phase will be responsible for a proportion of the development carbon footprint over the development lifetime. This is due to the embodied carbon associated with the extraction of raw materials, transport to the manufacturing unit, the manufacturing

process, the transport to the Site and actual construction on the site itself. This is referred to as life cycle stages A1 to A5, as shown in LETI's¹¹ diagram in document RED-CDL-XX-XX-D-SY-701.

Operational Phase

- 6.28 The operational phase will see both a potential impact upon the development from climate change, which is covered more in the climate risk section of this document, as well as the potential to contribute to climate change.
- 6.29 Emissions from the proposed development during the operational phase fall under B1-B7 of the WLC life-cycle stages: the main parts of this include the use, maintenance, repair and replacement of building materials and the operational energy and water consumption.

End-of-Life Stage

- 6.30 At the end-of-life stage, emissions are split into the four stages (C1-C4) shown in the document RED-CDL-XX-XX-D-SY-701. These emissions will be heavily dependent on how the building is treated at the end of its useful life; emphasising circularity throughout the design should decrease these emissions.

Climate Change Risk Assessment – Climate Change Resilience

- 6.31 In considering future Climate Change scenarios, IEMA¹² guidance recommends the use of the Met Office's UK Climate Projections, known as UKCP18. Using three emission scenarios (high, medium and low), 'probabilistic' projections are provided for a range of variables including temperature, precipitation, and sea level rise for 16 different geographic regions of the UK.
- 6.32 The current baseline for the proposed development is defined by historic climate conditions and the prevailing conditions at the time of this assessment. The historical baseline climate scenario will consider 1981-2010 as the most relevant for this assessment. Unless stated otherwise, UKCP18 probabilistic data will be used to assess projected climate variables for the UK based on administrative regions. This dataset provides Representative Concentration Pathway (RCP) projections extending to the end of the 21st century under different emissions scenarios. Each probabilistic projection is available at a spatial resolution of 25km.
- 6.33 RCP8.5 will be used as a high emissions pathway for assessing climate resilience. This scenario represents a potential future with a slower transition to low carbon energy provision. RCP8.5 is considered a possible, albeit conservative, emissions scenario and is therefore appropriate for evaluating the resilience of the Proposed Development.
- 6.34 UKCP18 projections for climate variables will be analysed for the selected 20-year time periods. The timeframes for the climate change scenario assessment will be:
- The 2030s covers the period 2020 to 2039.
 - The 2050s covers the period 2040 to 2059.
 - The 2070s covers the period 2060 to 2079.
- 6.35 Changes in climate scenario results will be given that are relative to the modelled climate for the baseline period chosen.

¹¹ LETI – Low Energy Transformation Initiative.

¹² Institute of Environmental Management and Assessment (now ISEP - Institute of Sustainability & Environmental Professionals)

- 6.36 The time period for the assessment will be agreed and determined based on the design life of the assets. It is recognised that in practice the design life of any asset can vary greatly based on what design approach is taken, though it is expected that a design life of 60 years will be used in line with the Whole Life Carbon approach according to RICS¹³.
- 6.37 The effects of a changing climate on the Proposed Development are generally likely to be assessed in relation to the Site as defined by the Site boundary and its immediate surrounds. However, traffic (and therefore climate-changing emissions from vehicles) and Flood Risk Assessments are likely to extend beyond the Site boundary.
- 6.38 Any Climate Change Assessment will use the information provided by other ES Chapters and documents listed below to inform and mitigate against climate change risk:
- EIA Methodology.
 - Air Quality.
 - Daylight, Sunlight and Overshadowing.
 - Noise and Vibration.
 - Wind Microclimate.
 - Planning documents for the Proposed Development (including Energy & Sustainability Statements and similarly related documents).
- 6.39 A non-exhaustive list of potential climate change impacts upon the development that will be considered can be found below; the exact material impacts that are applicable in this case will be quantified as part of the assessment itself.
- Reduction in capacity and energy consumption of heating systems.
 - Overheating in naturally ventilated buildings.
 - Under-sizing of comfort cooling systems.
 - Increase in cooling energy use.
 - Need for reduced building water consumption or increased storage due to droughts.
 - Resilience of utility infrastructure due to external climatic conditions.
 - Instability due to increased wind loads and / or storm frequency.
 - Under-sizing of drainage systems due to increased rainfall.

13 Royal Institution of Chartered Surveyors

Scope of Assessment

Identification of Effect/s which are Likely to be Significant

Table 6.10 Identification of effects which are not significant

Sub-Part of the EIA Chapter	Effect	Receptor	Applicable Development Phase (C / O)
GHG Emissions	Raw material extraction (A1)	Global Climate	C
GHG Emissions	Transport to manufacturing unit (A2)	Global Climate	C
GHG Emissions	Manufacturing (A3)	Global Climate	C
GHG Emissions	Transport to site (A4)	Global Climate	C
GHG Emissions	Construction activities (A5)	Global Climate	C
GHG Emissions	In-use emissions (B1)	Global Climate	O
GHG Emissions	Maintenance (B2)	Global Climate	O
GHG Emissions	Repair (B3)	Global Climate	O
GHG Emissions	Replacement (B4)	Global Climate	O
GHG Emissions	Refurbishment (B5)	Global Climate	O
GHG Emissions	Operational energy consumption (B6)	Global Climate	O
GHG Emissions	Operational water consumption (B7)	Global Climate	O
GHG Emissions	Deconstruction (C1)	Global Climate	C
GHG Emissions	Transport at end-of-life (C2)	Global Climate	C
GHG Emissions	Waste processing (C3)	Global Climate	C
GHG Emissions	Disposal (C4)	Global Climate	C
GHG Emissions	Benefits beyond the system boundary (D)	Global Climate	C
GHG Emissions	Operational Transport	Global Climate	O

CCRA	Increasing Average / Maximum Temperatures	Buildings & infrastructure Human health receptors The Environment	C, O
CCRA	Decrease in Mean Summer Rainfall	Buildings & infrastructure Human health receptors The Environment	C, O
CCRA	Intense Rainfall Events	Buildings & infrastructure Human health receptors The Environment	C, O
CCRA	Flooding	Buildings & infrastructure Human health receptors The Environment	C, O
CCRA	Wind	Buildings & infrastructure Human health receptors The Environment	C, O
CCRA	Wildfire	Buildings & infrastructure Human health receptors The Environment	C, O

Assessment Methodology for Likely Significant Effects

- 6.40 The Proposed Development will be supported by a specific EIA Climate Change Chapter which will consider all of the potential impacts referenced above in the Technical Chapter setting out the credentials of the development as a whole.
- 6.41 The methodology and strategy proposed by Cundall will also set out Climate Change mitigation by utilising existing benchmark data for the type and scale of the Proposed Development in relation to Whole Life Carbon and adaptation, setting out the results and risks to the Proposed Development if no account for future Climate Change scenarios was taken.
- 6.42 The impact of the Proposed Development will be assessed using RICS v2 Whole Life Carbon Assessment Methodology to assess the identified scenarios for the Proposed Development, demonstrating how the Proposed Development limits its contribution to Climate Change. Again, the results and risks to the development for the Proposed Development (with consideration for the effects of Climate Change) will establish the need to implement measures to ensure the buildings are adaptable.
- 6.43 The Climate Change Chapter will be broken down into two elements:

Whole Life Carbon Assessment – GHG Emissions

- 6.44 A Whole Life Embodied Carbon Assessment (WLECA) will be carried out, beginning by initiating individual discussions with the Design Team to provide options, ideas and comparative analysis for low carbon approaches to architectural, structural, and services design strategies.
- 6.45 Cundall will carry out an initial WLECA based on cost plan and design information, and following RICS v2 guidance document¹⁴. Material LCA assessment using the BRE¹⁵ approved tool. The following categories will be included in the assessment:
- Substructure.
 - Superstructure (frame, upper floors, roof, stairs and ramps, external walls, windows and external doors).
 - Internal Finishes.
 - Fittings, furniture, and equipment.
 - External works.
 - Benchmarked operational energy data.
- 6.46 Cundall will then detail out the embodied carbon reduction appraisal, highlighting considerations the design team will be making as the design develops, to encourage and facilitate the use of low-carbon materials.
- 6.47 The Proposed Development is to be delivered in three phases: Phase A (South Block), Phase B (North Block) and Phase C (Land to the South - access to viaduct and public realm). While Phases A and B are relatively fixed, Phase C is a “floating” phase and may be delivered earlier, later, or concurrently with the other phases depending on occupier demand and delivery programmes.
- 6.48 For the purposes of the GHG emissions assessment, it is important to ensure that the analysis captures a worst-case scenario for GHG emissions, whilst also maintaining flexibility for how the scheme is ultimately delivered. The approach being taken for this assessment therefore reflects the potential for Phase C to be delivered at any point in the programme.
- 6.49 While a range of phasing combinations could come forward as outlined in the scenario matrix, the worst-case scenario from a GHG perspective will be considered to be the full build-out of all phases being constructed concurrently (i.e. Scenario 5a). This represents the maximum potential volume of material demand, construction activity, and associated transport movements taking place within the same timeframe, and therefore generates the highest potential construction-phase GHG emissions.
- 6.50 In practice, however, the timing of Phase C is not expected to significantly affect the total quantity of emissions. This is because embodied carbon (Modules A1-A5) and operational emissions (Modules B1-B7) are calculated based on the total proposed development area and building typology, not the sequence in which the phases are delivered. What may vary with phasing is the timing and distribution of emissions over the construction programme - for example, emissions being spread over a longer or shorter period. This variation will be

14 RICS (2023). Whole life carbon assessment for the built environment – 2nd Edition [online]. Available at: <https://www.rics.org/profession-standards/rics-standards-and-guidance/sector-standards/construction-standards/whole-life-carbon-assessment>.

15 BRE. Building Research Establishment.

acknowledged qualitatively within the ES but is not expected to materially change the overall significance of effects, given that the total GHG emissions would remain the same.

- 6.51 For the construction phase, the assessment will calculate the total upfront embodied carbon associated with the full Proposed Development, based on the materials, floor areas and typologies of each phase. The assumption of all phases being delivered concurrently (Scenario 5a) will be treated as a reasonable worst-case for assessment purposes, ensuring that maximum emissions potential is captured.
- 6.52 For the operational phase, emissions from energy use, water consumption, maintenance, and other in-use activities (Modules B1-B7) will be estimated based on the completed development area and use type. The timing of Phase C delivery is not expected to affect the calculated operational emissions. However, if any overlap between construction and operation occurs (e.g. one phase begins operation while another is still under construction), this will also be considered qualitatively within the assessment to determine whether there is any potential for cumulative or interrelated impacts.
- 6.53 Overall, this approach ensures that the GHG emissions assessment reflects the maximum potential impact associated with the Proposed Development, while also allowing for flexibility in how the scheme is ultimately delivered. It is considered a robust and proportionate methodology aligned with best practice for EIA and GHG assessments.

Climate Change Risk Assessment – Climate Change Resilience

- 6.54 For reporting purposes, this section of the ES follows the procedural steps set out in the IEMA guidance Environmental Impact Assessment Guide to: Climate Change Resilience and Adaptation (2020)¹⁶ and the IEMA Climate Change Adaptation Practitioner Guidance (2022)¹⁷.
- 6.55 The Climate Change Risk Assessment (CCRA) evaluates the potential risks posed by future climate conditions to the design, construction, and long-term operation of the Proposed Development. The assessment considers risks over the assumed 60-year lifecycle of the Proposed Development and is aligned with the principles of a proportionate, risk-based approach.
- 6.56 The CCRA will be informed by the most up-to-date and robust climate science, including data from:
- The UK Climate Projections 2018 (UKCP18)
 - The Intergovernmental Panel on Climate Change (IPCC)
 - Met Office datasets
 - Other peer-reviewed academic and policy publications where applicable
- 6.57 Climate projections will be considered across three future time horizons - the 2030s, 2050s, and 2070s - representing short-, medium- and long-term climate futures under a plausible worst-case emissions scenario (RCP8.5), in line with IEMA guidance. These projections will inform the assessment of the significance of each climate hazard over the full assumed 60-year operational lifespan of the Proposed Development.
- 6.58 Climate variables to be considered include:

¹⁶ IEMA (2020). Environmental Impact Assessment Guide to: Climate Change Resilience & Adaptation.

¹⁷ IEMA (November 2022). IEMA Climate Change Adaptation Practitioner Guidance.

- Increasing Average / Maximum Temperatures
 - Decrease in Mean Summer Rainfall
 - Intense Rainfall Events
 - Flooding
 - Wind
 - Wildfire
- 6.59 The CCRA will identify potential climate hazards and assess their impact on the fabric, structure, services, and operation of the Proposed Development, during both construction and operation. The assessment will consider:
- Structural stability and robustness
 - Weatherproofing and detailing
 - Material and system durability
 - Thermal comfort and indoor environmental conditions
 - Health and safety of workers and occupants
 - Resilience of energy, ICT, and utilities infrastructure
 - Drainage and surface water management
 - Accessibility, connectivity, and public realm function during adverse conditions
- 6.60 Where design features have already been incorporated to reduce or manage climate-related risks, these will be identified and treated as embedded mitigation within the assessment.
- 6.61 In addition, further climate adaptation or resilience measures - which are not yet committed to or confirmed - may be outlined as additional mitigation. Additional mitigation will include further climate adaptation measures that may be considered or recommended for incorporation as the design progresses. These are not yet committed to or confirmed and may be subject to future refinement, technical feasibility, or occupier/operator input.
- 6.62 It is acknowledged that while the Proposed Development is being designed to reduce climate-related risks, some residual climate risks may remain. This is due to the inherent uncertainties in projecting long-term climate outcomes, particularly regarding extreme events, rates of global emissions reduction, or tipping points in Earth systems. This uncertainty will be transparently acknowledged in the assessment, in line with IEMA guidance.
- 6.63 The Proposed Development is to be delivered in three distinct phases:
- Phase A - Block A (South Block),
 - Phase B - Block B (North Block), and
 - Phase C - Land to the South, including access to the viaduct and public realm.
- 6.64 While Phases A and B are relatively fixed, Phase C is defined as a “floating” phase and may be delivered at any point in the overall programme - earlier, later, or concurrently with the other phases - depending on occupier demand and delivery logistics.

- 6.65 To ensure a robust and flexible understanding of risk, the CCRA will assess the full build-out of the development – i.e. scenario 5a - as a reasonable worst-case scenario. This ensures that all physical elements and associated infrastructure are considered concurrently when assessing vulnerability to future climate impacts.
- 6.66 Although the timing of Phase C could influence the timing of exposure to certain climate hazards (e.g. landscaping installed in a wetter future climate period), it is not expected to materially alter the overall risk profile across the lifetime of the Proposed Development. Where relevant, this potential for phasing to influence the timing rather than the magnitude of risk will be acknowledged qualitatively in the assessment.

Limitations and Assumptions – GHG Emissions

- 6.67 The GHG emissions assessment will be undertaken using a proportionate, evidence-based approach in line with current best practice. Reasonable assumptions will be made based on available project design information, published benchmarks, and government data sources, with the aim of providing a robust and conservative estimate of the emissions associated with the Proposed Development.
- 6.68 The following limitations and assumptions will inform the assessment:
- **Design Stage Inputs:** The assessment will be based on detailed design-stage information available at the time of assessment. Where more detailed, project-specific information is available (e.g. floor areas, material quantities, energy systems), it will be used in preference to generic data or benchmarks.
 - **Energy Consumption Benchmarks:** Operational energy use will be estimated using published benchmarks from the Chartered Institution of Building Services Engineers (CIBSE Energy Benchmarking Dashboard, 2021) for different building typologies. Where detailed modelling outputs or building-specific energy strategies are available, these may be used in place of benchmark figures.
 - **Water Consumption Benchmarks:** Operational water consumption will be estimated using published benchmarks from the Plumbing Engineering Services Design Guide (2002). While this guidance is dated, it provides a conservative and widely recognised basis for estimating typical water usage. If more recent or project-specific data becomes available, this will be used where appropriate.
 - **Electricity Grid Decarbonisation:** Projected carbon intensity values for grid electricity will be sourced from the UK Government's Department for Energy Security and Net Zero (DESNZ) 'Electricity Emissions Factors to 2100'. These projections reflect current net zero policy commitments. Although actual grid performance may vary, these assumptions ensure alignment with national targets.
 - **Design Life Assumption:** A 60-year design life will be assumed for the Proposed Development, in line with BS EN 15978:2011 and the RICS Whole Life Carbon Assessment for the Built Environment (2nd Edition, 2023). This provides a consistent timeframe for assessing operational and lifecycle emissions.
 - **Construction Phasing:** While the development will be delivered in three phases, the assessment will assume a worst-case scenario in which all phases are constructed and operational concurrently. This ensures that the potential maximum GHG impact is captured, regardless of actual build sequence.

- **Embodied Carbon Benchmarks:** Embodied carbon emissions will be calculated using project-specific material information where available, or appropriate benchmarks from Cundall's internal database of previous Whole Life Carbon Assessments. These benchmarks are aligned with BS EN 15978 and calculated using a BRE-approved carbon calculator tool.
- **End-of-Life Scenarios:** Emissions associated with deconstruction, material transport, waste processing and disposal (Modules C1–C4) will be estimated using standard benchmarks and assumptions aligned with BS EN 15978, as well as product-specific EPDs where available.
- **Emission Factors:** All carbon emission factors will be sourced from the UK Government's GHG Conversion Factors for Company Reporting or other nationally recognised sources, as applicable at the time of assessment.
- **Module D (Benefits Beyond the System Boundary):** Any potential benefits from reuse, recycling or material recovery (Module D) will be acknowledged separately. Where available, values from EPDs or carbon tools will be used to provide contextual information. However, these benefits will not be included in the net emissions calculation, in line with IEMA guidance, as they rely on outcomes beyond the control of the Proposed Development.

Limitations and Assumptions – Climate Resilience

- 6.69 The CCRA will be carried out using a structured methodology aligned with IEMA's Climate Change Resilience and Adaptation Guidance (2020). Reasonable assumptions will be made based on available design information, recognised climate projection data, and current best practice in climate risk assessment.
- 6.70 The assessment will consider both the construction and operational phases of the Proposed Development and will use the UKCP18 climate projections and other publicly available datasets to evaluate future risk exposure.
- 6.71 Key assumptions and limitations are outlined below:
- **Design Life Assumption:** A 60-year design life will be assumed for the Proposed Development. This is consistent with the temporal boundary used for the GHG emissions assessment and is based on BS EN 15978:2011 and the RICS Whole Life Carbon Assessment (2023). It ensures alignment with standard building lifespan assumptions used in environmental assessments.
 - **Climate Scenario Selection:** Future risk projections will be assessed using the UKCP18 high emissions scenario (RCP8.5) across three future time periods - 2030s, 2050s, and 2070s. These periods will inform the assessment of potential climate hazards over the full operational lifespan of the development.
 - **Mitigation Measures:** Where embedded design features exist that address climate risks (e.g. drainage systems, passive ventilation, overheating strategies), these will be included in the assessment as embedded mitigation. Additional, non-committed adaptation options may also be proposed where appropriate, but these will be treated as recommendations rather than guaranteed outcomes.
 - **Uncertainty in Climate Projections:** While robust scientific methods will be used, the precise trajectory of global emissions and their climatic effects remain uncertain. This includes uncertainties surrounding feedback loops, extreme weather trends, and ice sheet dynamics, which may influence long-term outcomes beyond the timescales of this project.

- **Residual Risk:** It is acknowledged that, despite mitigation, some climate-related residual risks may remain due to extreme or unforeseen climate events. The aim of the CCRA is to support risk-informed decision-making, not to eliminate all risk entirely.
- **Phasing Considerations:** Although the Proposed Development will be delivered in three phases (A, B and C), the assessment will consider the worst-case scenario of all phases being constructed and operational concurrently. This approach ensures that all components are assessed consistently in relation to long-term climate exposure.

Daylight Sunlight and Overshadowing (GIA)

Consultation & Available Information, & Baseline Conditions

Consultation

- 6.72 There are no specialists within Manchester City Council or other statutory consultees relevant to the area of daylight and sunlight. As such, no consultation will be undertaken.

Completed Background Studies

Table 6.11 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Identification of residential and hotel sensitive receptors surrounding the Site	Site visit and review of council tax records	April 2024
Identification of external amenity space sensitive receptors surrounding the Site	Site visit and review of Proposed Development and aerial photography	April 2024
Location of floor plans for the sensitive receptors	Review of MCC planning portal, leases and online marketing details	In Progress

Baseline Conditions

- 6.73 The baseline against which all assessments will be undertaken is the level of massing which exists on the Site as of September 2025.
- 6.74 An assessment of a future baseline of the Site not redeveloped will also be included for qualitative purposes.

Daylight & Sunlight

- 6.75 The BRE Guidelines¹⁸ suggest that residential properties have the highest requirement for daylight and sunlight and states that:

“the guidelines are intended for use for rooms in adjoining dwellings where light is required, including living rooms, kitchens and bedrooms.”

¹⁸ Building Research Establishment (BRE) (2022) Site layout planning for daylight and sunlight: a guide to good practice (BR209) (2022)

- 6.76 The scope of entirely residential properties, properties that contain an element of residential accommodation or hotels being of a transient residential nature (sensitive receptors) that will be assessed has been determined through professional judgement, considering their orientation and proximity to the Site.
- 6.77 Baseline studies are currently being undertaken by GIA. The baseline assessment will review the daylight and sunlight conditions within each of the sensitive receptors in the Site area's present form (ie the current baseline).
- 6.78 The following sensitive receptors will be considered for daylight and sunlight due to their residential use and proximity to the Site:

Table 6.12 Sensitive Receptors for Daylight and Sunlight

Property Address	Use
Dantzic Street Development (126944/FO/2020)	Residential
Red Bank Outline Masterplan (136812/OO/2023)	Residential
Barton Place	Residential
Masson Place	Residential
Jefferson Place	Residential
Britton House	Residential
Melia House	Residential
Lincoln Gate	Residential
St Chads Presbytery	Residential

- 6.79 The following sensitive receptors will be considered for overshadowing

Table 6.13 Sensitive Receptors for Overshadowing

Area Location/Name
Amenity spaces covered by the HIF consent (133143/VO/2022 amended by 137079/JO/2023) that are within 90 degrees of due north of the Site

Scope of Assessment

Identification of Effect/s which are Not Significant

Table 6.14 Identification of Effects which are Not Significant

Effect	Reduced daylight and sunlight amenity within commercial properties or distant residential properties	Applicable Development Phase	O	Receptor	All
Discussion of Effect					
The scope of works will focus on the nearest sensitive receptors which are the residential receptors and public amenity spaces in the immediate vicinity of the Site. These have been determined in line with the reasonable expectation of daylight and sunlight as per the BRE guidelines. The BRE guidelines consider that residential properties have the highest requirement for daylight and sunlight. As such, daylight and sunlight effects to commercial buildings surrounding the Site, or residential buildings which are not in sufficient proximity to the Site, are not considered to be significant and will not be considered further in the EIA or reported in the ES.					
Mitigation Committed to in order to Avoid or Reduce Effect					

None
Concluding Statement
Reduced daylight and sunlight amenity within commercial properties or distant residential properties will not be assessed.

Table 6.15 Identification of Effects which are Not Significant

Effect	Reduced daylight and sunlight amenity within surrounding residential receptors during demolition and construction	Applicable Development Phase	C	Receptor	All
Discussion of Effect					
Owing to the evolving and changing nature of construction activities, the assessment of potential effects during construction of the Proposed Scheme on daylight and sunlight to surrounding properties will not be modelled. Since the potential daylight and sunlight effects relating to construction works will vary throughout the construction programme and gradually increase to the potential effects identified for the completed Proposed Scheme, the interim construction effects will not be assessed quantitatively as it is considered that the completed Proposed Scheme represents the worst-case assessment in terms of likely daylight and sunlight. Therefore, reduced daylight and sunlight amenity within the surrounding residential receptors during the demolition and construction phases is not considered to be significant (or if it is, only on parity with the completed Proposed Scheme) and will not be considered further in the EIA or reported in the ES.					
Mitigation Committed to in order to Avoid or Reduce Effect					
None					
Concluding Statement					
Reduced daylight and sunlight amenity within surrounding residential receptors during demolition and construction phase will not be assessed.					

Identification of Effect/s which are Likely to be Significant

Table 6.16 Identification of Effects which are Likely to be Significant

Effect	Receptor	Applicable Development Phase (C / O)
Reduction in daylight amenity	See above list	O
Reduction in sunlight amenity	See above list	O
Increased shadow	See above list	O

Assessment Methodology for Likely Significant Effects

- 6.80 The assessments will be carried out in accordance with the BRE Guidelines. The analysis will be calculated from a 3D computer model using specialist software based on detailed architectural models, Ordnance Survey (OS) mapping and photogrammetry.

Daylight & Sunlight Assessment Methodologies

- 6.81 In line with the BRE Guidelines, both the Vertical Sky Component (VSC) and No Sky Line (NSL) assessments will be undertaken in the Proposed Development scenario for the relevant sensitive receptors identified.
- 6.82 The sunlight amenity to the surrounding relevant receptors will be considered by reference to the BRE recommended Annual Probable Sunlight Hours (APSH) method of assessment. Due to the southerly location of the sun in the sky, this assessment will consider those windows which face the site and are orientated to within 90 degrees of due south.

Overshadowing Assessment Methodology

- 6.83 In line with the BRE Guidelines, sun hours on ground (SHOG) assessments will be undertaken to confirm and quantify any effect on 21st March. The SHOG assessment will assess the proportion of a designated amenity space which receives two or more hours of direct sunlight on 21st March.

Scenarios Assessed

- 6.84 There is potential for the development to be phased, and consideration has been given to the appropriate scenarios to be assessed. The results of the following assessment scenarios will be reviewed and reported
- Scenario 1: Baseline (existing site as of September 2025);
 - Scenario 5: Baseline + Phase A + Phase B + Phase C; and
 - Scenario 5a: Baseline + Phase A + Phase B + Phase C + Cumulative.
- 6.85 These scenarios have been chosen as they represent the worst case scenario.

Assessment Criteria

- 6.86 The following table provides a summary of the criteria set out within the BRE Guidelines for daylight and sunlight.

Table 6.17 Summary of Criteria

Method	BRE Criteria
VSC	A window may be adversely affected if its VSC measured at the centre of the window is less than 27% and less than 0.8 times its former value.
NSL	A room may be adversely affected if the daylight distribution (NSL) is reduced beyond 0.8 times its existing area.
APSH	A window may be adversely affected if a point at the centre of the window received for the whole year, less than 25% of the APSH including at least 5% of the APSH during the winter months (21 September to 21 March) and less than 0.8 times its former sunlight hours during either period, and for existing neighbouring buildings, if there is a reduction in total APSH which is greater than 4%.
SHOG	An amenity area may be adversely affected if less than 50% of its area receives less than 2 hours of direct sunlight on 21 March and less than 0.8 times its former value.

- 6.87 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible), the magnitude of change (on a scale of large, medium, small and negligible), and the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined from this evaluation and including professional judgment.
- 6.88 When assigning significance criteria for daylight, sunlight and overshadowing effects, professional judgement will be used in conjunction with the significance criteria in Appendix 4. Consideration will be given to the proportion of rooms/windows/amenity area affected, as well as the percentage alterations, absolute changes, sensitivity of the receptor, and any other relevant factors. There may be mitigating factors such as location and nature of development, balconies, overhangs or design features which may also affect the determination of assigning the criteria.
- 6.89 Effects classified as Moderate or Major in scale are considered to be 'significant'. Effects classified as Minor or Negligible in scale are considered to be 'not significant'.

Ground Conditions (LK Group)

Consultation & Available Information, & Baseline Conditions

Consultation

6.90 No consultation has been carried out.

Completed Background Studies

Table 6.18 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Phase 1 Preliminary Risk Assessment - 50-54 Red Bank, Cheetham Hill - LKC22 1601-01 R0 Undertaken for Phase A and B only. However, similar ground conditions are anticipated therefore similar risks assumed.	<u>Historical Review:</u> Onsite – terraced houses, unspecified feature, works, undifferentiated building. Offsite – various works and railway land. <u>Geology:</u> Till over Chester Formation (sandstone). <u>Aquifer:</u> Secondary Undifferentiated over Principal. <u>Coal Mining:</u> Not within a coal reporting area. <u>Current site use:</u> Phase A area of the site (north) comprises disused land with a concrete slab (noted to be in poor condition) and vegetated ground. Possible Japanese Knotweed was noted. Phase B area of the site (central) comprises a two storey brick building used for workshops with an outdoor bar space. Phase C (south) comprises disused vegetated ground. <u>Preliminary Conceptual Model:</u> Potential sources of contamination were identified associated with potential made ground, demolished buildings, works, railway and commercial use. Potential contamination included asbestos, heavy metals, sulphates, PAHs, petroleum hydrocarbons, herbicides and other organic and inorganic contaminants.	8 th December 2022

Potential receptors were identified as site users (human health), controlled waters (aquifer), building and potable water pipes.

Potential pathways were identified as ingestion, dermal contact, inhalation, windblown dust / fibres (human health), direct contact (services), surface run-off, infiltration into the ground (water), migration through permeable strata (water and gas) and migration into buildings (gas).

5no. pollutant linkages of moderate to high risk identified. This is assumed to extend across Phases A to C of the Site.

Investigation work was recommended to further assess the risk and determine the remediation requirements to ensure the safe development of the site.

Baseline Conditions

- 6.91 It is assumed that the site hasn't changed significantly since the issue of the Phase 1 PRA (2022). A former works building in the centre / south has recently been used for commercial use (Phase B area). Land in the north is derelict comprising a mix of vegetated ground and concrete slabs (Phase A area). Land to the south comprised derelict rough ground (Phase C area).
- 6.92 As intrusive investigation work has not been undertaken at this stage, there is assumed to be contamination in the ground. This could pose a risk to controlled waters (Principal Aquifer) if there is a pathway through the superficial into the principal aquifer below, to site users where there is exposure to made ground (limited to soft landscaping areas), to buildings and site users if gas (carbon dioxide and methane) can migrate into the building, and to potable water pipes via direct contact with contaminants in the site.
- 6.93 Should the development not occur the site, the contamination could continue to pose a risk to controlled waters, current site users, buildings and potable water pipes.
- 6.94 Should development occur, the contamination will remain a risk to controlled waters, current site users / future site users, buildings and potable water pipes. However, it is assumed that as part of the development and planning process, the risks will be further assessed, and remediation undertaken to eliminate or reduce these potential risks to acceptable levels.
- 6.95 The baseline area includes all the proposed development site boundary (including Phases A, B and C). Although the Phase 1 Preliminary Risk Assessment did not include the southern area of the site (Phase C), it is assumed that similar ground conditions could be present as the site history and geology are consistent.

Scope of Assessment

Identification of Effect/s which are Likely to be Significant

Table 6.19 Effects which are Likely to be Significant

Effect	Receptor	Applicable Development Phase (C / O)
Contamination Risk (Human Health) During development: Likely negative effect during development as a potential pollutant linkage may be created. Precautions will need to be taken during construction work to limit the effects.	Construction Workers and nearby land users	C
Contamination Risk (Human Health) Following development: Negative effect without mitigation as a new pollutant linkage will be formed (new site users being in contact with potentially contaminated soils through direct contact or inhalation of dust/fibres or vapours) Positive effect following remediation and there will be improvement to the land quality and there will no pollutant linkage.	Future Site Users	O
Contamination Risk (Controlled waters) Following development: Likely positive effect following remediation. There will likely be improvement to the land quality and reduced effect on the receptor.	Principal Aquifer	C and O
Contamination Risk (Potable Water Pipes) Following development: Negative effect without mitigation as a new pollutant linkage may be formed (additional site users and new potable water pipes) Positive effect following remediation and there will be improvement to the land quality and there will no pollutant linkage.	Human Health / Water Supply	O

Gas Risk	Buildings / Properties / Future Site Users	O
Following development:		
Negative effect without mitigation as a new pollutant linkage will be formed (gas posing a risk to receptors)		
Positive effect following remediation and there will be improvement to the land quality and there will no pollutant linkage.		

Assessment Methodology for Likely Significant Effects

- 6.96 The baseline data (Phase 1 PRA) as detailed in above sections shall be used to assess the likely significant environmental effects.
- 6.97 All the effects will need to be considered during each phase of the development.
- 6.98 With regards to the two baseline scenarios (baseline as existing and baseline including the HIR ramp), the baseline as existing is assumed to be worst case as it is assumed that there will be an increase in groundworks and therefore an increased risk of exposure to potential contaminants.
- 6.99 All scenarios are being included at this stage. The worst case scenario is assumed to be Scenario 5 as these includes the largest site area (scenarios based on Deloitte EIA Screening and Scoping Briefing Note).
- 6.100 Note that intrusive investigations, detailed risk assessments and a remediation strategy have yet to be completed.
- 6.101 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.
- 6.102 All the effects will need to be considered during each phase of the development.
- 6.103 The assessment will give due recourse to the UK regulations, guidance and industry best practice with regards to contamination risks. This includes:
- Contaminated Land Regulations 2006
 - Environmental Protection Act 1990: Part 2A
 - Town and Country Planning Act (1990)
 - Water Framework Directive
 - EU Groundwater Directive
 - Environmental Protection Act 1990 (Part 2A)
 - Water Resources Act 1991

- The Planning Act 2008
- The Building Act 1984
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003
- Water Environment (Water Framework Directive) (England and Wales) (Amendment) Regulations 2017
- The Groundwater (England and Wales) Regulations 2009
- The Water Resources Act (Amendment (England and Wales) Regulations 2009
- The Anti-Pollution Works Regulations 1999
- Water Supply (Water Quality) Regulations 2016 (as amended 2018)
- Environmental Damage (Prevention and Remediation) Regulations 2015
- Environmental Permitting (England and Wales) Regulations 2016
- Control of Pollution Act 1989 and The Control of Pollution (Oil Storage) (England) Regulations 2001
- The Building Regulations 2010 (as amended 2011, 2012, 2013, 2014 and 2015)
- National Planning Policy Framework (updated December 2024)
- National Planning Practice Guidance (2019)
- Greater Manchester – Joint Waste Development Plan Document
- Manchester City Council Contaminated Land Strategy 2020-2025
- Land Contamination Risk Management (LCRM) (Ref. 13.27) which supersedes CLR 11
- Guiding Principles for Land Contamination
- Groundwater Protection: Principles and Practice superseded by 'The Environment Agency's approach to groundwater protection' (Version 1.2, 2018)
- A Framework for Assessing the Sustainability of Soil and Groundwater Remediation
- Environmental Management Guidance which although withdrawn, remain a source of information on practice
- Construction Industry Research and Information Association (CIRIA) Guidance – Guidance C692, Guidance C532, Guidance C665 and Guidance C758

Limitations and Assumptions

- 6.104 This screening and scoping has been carried out based on the Phase 1 Preliminary Risk only. No intrusive investigation, interpretive risk assessment or remediation strategy has been undertaken. As a conservative approach, the effects are considered to be potentially significant at this stage.

Heritage (SLHA)

Consultation & Available Information, & Baseline Conditions

Consultation

- 6.105 Manchester City Council was consulted via email correspondence on 13 August 2025 to agree the scope of the views for Heritage and Townscape. This resulted in an additional view being

added from area of Dantzic Street/Dalton Street to capture view from emerging Collyhurst community area. This view has subsequently been scoped in. Further consultation may form part of future pre-application discussions.

Completed Background Studies

Table 6.20 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Zone of Theoretical Visibility ('ZTV') Study	Produced by Re-Form.	March 2024
Identification of key views	Identification of key views from local and wider townscape area of the Site utilising ZTV and understanding of heritage and townscape sensitivities. Input from Re-Form and SLHA.	August 2025
Review of National Heritage List for England ('NHLE')	Identification of listed buildings, Scheduled Monuments, Registered Parks & Gardens etc. in the setting of the Site. Undertaken by SLHA.	April 2024
Review of Manchester City Council's ('MCC') interactive planning map	Identification of Conservation Areas in the setting of the Site. Undertaken by SLHA.	April 2024
Review of setting of Site for non-designated heritage assets which have potential to be affected	Identification of non-designated heritage assets in local and wider setting of the Site which have the potential to be affected by the Proposed Development. Prepared by SLHA.	April 2024

Baseline Conditions

Description of the Site

- 6.106 The Site comprises an area of land that is bound by Red Bank to the west and a historic former railway viaduct (to a now dismantled railway) to the east. The Site's southern boundary is defined by Roger Street, which passes below the viaduct as it continues to the east. The area to the north of the Site comprises a cleared plot of land which is subject to redevelopment as part of a wider masterplan (Outline application reference 136812/00/2023) comprising a large-scale mixed-use development covering much of the area lying between Red Bank to the west and the railway line to the east.

- 6.107 The Site comprises three main parcels: to the south (Phase C), an area of low quality, scrubby vegetation, to the north (Phase A) a cleared, brownfield site with an access gate, and between them (Phase B) a one-and-two storey brick building. The central building appears to date from the mid or second half of the 20th century; its scale increases from one to two storeys from north to south as the road declines in elevation. The building is of low quality, with a low-pitched roof, uPVC windows, infilled service accesses, window grilles, metal shutters, and a graffitied exterior. The linear building has an ad hoc range attached to its eastern elevation, set-back from the frontage providing a vehicle access from Red Bank. The area between the building and the viaduct structure comprises a number of less permanent structures, including a series of canvas-covered seating areas (reflecting the building's use as a temporary bar) and other semi-covered areas.
- 6.108 The Site is considered to be of low townscape and heritage value, with low quality boundaries to Red Bank (metal fencing and hoardings), poor vegetation, areas of hardstanding, and inactivity.

Phase C Baseline

- 6.109 The Proposed Development is envisaged to comprise three phases: Phase A – Block A (South Block), Phase B – Block B (North Block), Phase C – Land to the South. Phase C has two baseline options as it is outside the control of the Applicant and is the subject of an implemented consent for the creation of a ramped access to the viaduct as part of the Redbank HIF package (application reference 133143/VO/2022 amended by 137079/JO/2023). This is the alternative baseline, whilst the existing baseline includes the plot in its existing condition. Both baselines will be considered in the forthcoming Heritage Chapter to ensure the worst-case scenario is considered.
- 6.110 The ES will also consider qualitatively a future baseline scenario in which the entire site was not redeveloped.

Baseline Appraisal Methodology

- 6.111 A study area of 500m from the Site boundary has been determined by SLHA as being appropriate and proportionate for the consideration of potential significant effects of the Proposed Development on the setting of heritage assets in the local area. The determination of the study area has been based on an understanding of the existing nature of the Site and its surroundings, heritage sensitivities in the locality of the Site, the form and character of the Proposed Development, a ZTV prepared by Re-Form, and has been further informed by professional judgement and experience in similar assessments. It is acknowledged that there are a number of heritage assets outside of the study area and in the wider setting of the Site.
- 6.112 Baseline data of the study area was collected utilising Historic England's Online Mapping tool (plotting structures identified on the NHLE), MCC's local designations information available online, primarily in regard to Conservation Areas, and through a visual survey undertaken in April 2024. Google Earth was also utilised as part of the baseline data collection.
- 6.113 Due consideration has been given to heritage assets outside of the 500m study area. It has been determined that it is probable there will be no potential for significant effects on these receptors due to separating distance and interposing built form and landscape. Notwithstanding this, heritage assets outside of the study area will still be considered with regard to any potential material impact to their setting or an appreciation of their significance

in the forthcoming built heritage assessment and any effects identified; this will be informed by the verified views prepared by Re-Form to support the application.

- 6.114 The built heritage chapter will identify and evaluate the nature and likelihood of the impacts of the Proposed Development, both permanent and temporary, in both the short term and long term, on built heritage receptors against clearly defined criteria.

Heritage Baseline

- 6.115 The Site is not located in a Conservation Area, nor does it contain any listed buildings. Within 500m of the Site boundary, there is a total of 19 listed buildings. Only the Shudehill Conservation Area falls within the 500m study area, however the Cathedral Conservation Area is just on the periphery of the study area and so this heritage asset is included within the baseline at this stage for the purposes of this scoping exercise.
- 6.116 MCC have not identified any non-designated heritage assets within the local setting of the Site. Notwithstanding this, it is considered that the historic viaduct to the east of the Site possesses a degree of local architectural and historical interest, and it is therefore identified and addressed as a non-designated heritage asset ('NDHA'). Maps showing the location of heritage assets relevant to the Site are presented at Figures 1 and 2 at Appendix 6, in addition to the latest ZTV prepared by Re-Form at Figure 3 which also maps the viewpoints which have been identified for the purposes of the HVIA. Of the 14 views identified, 6 are specifically relevant for the assessment of potential heritage impacts.
- 6.117 The ZTV has demonstrated that the Proposed Development has the potential to affect the setting of a number of heritage assets outside of the 500m study area. Those heritage assets which fall outside the 500m study area but which have the potential to have a visual relationship with the Site include:
- Cathedral Church of St Mary (Grade I)
 - Chethams Hospital and Attached Wall (Grade I)
 - Mynshulls House (Grade II)
 - Detached Block of Schoolroom Approximately 20 Metres South of Chethams Hospital (Grade II)
 - South east wing to Chetham's Hospital (former Manchester Grammar School) (Grade II)
 - Main Prison Block of HMP Manchester (Grade II)
 - Gatehouse of HMP Manchester (Grade II)
 - Former Boys Prison Block of HMP Manchester (Grade II)
 - The Tower of HMP Manchester (Grade II)
 - Co-Operative Insurance Society (CIS) Building (Grade II)
 - Holyoake House (Grade II)
 - Cooperative Society Building (2) (Grade II)
 - Cooperative Wholesale Society (Grade II)
 - City Buildings (Grade II)
 - Victoria Station including Concourse to rear with Restaurant and Booking Hall (Grade II)

6.118 The full heritage baseline is presented in the table below:

Table 6.21 Full heritage baseline

Name of Heritage Asset	Designation	Heritage Value
Cathedral Church of St Mary	Grade I listed	High
Chethams Hospital and Attached Wall	Grade I listed	High
Manchester Jewish Museum	Grade II* listed	High
Cooperative Society Building (1)	Grade II listed	Medium
Sharp Street Ragged School	Grade II listed	Medium
Parkers Hotel	Grade II listed	Medium
Marble Arch Inn	Grade II listed	Medium
Roman Catholic Church of St Chad and attached Presbytery, and Boundary Walls	Grade II listed	Medium
New Century House, Including Its Attached Conference Hall And Abstract Concrete Relief Wall In The Entrance Piazza	Grade II listed	Medium
Charter Street Mission (formerly Charter Street Ragged School and Working Girls' Home)	Grade II listed	Medium
Former Free Library	Grade II listed	Medium
Ashton House	Grade II listed	Medium
Knowsley Hotel	Grade II listed	Medium
Union Bridge	Grade II listed	Medium
Warehouse On West Corner Of Junction With Simpson Street	Grade II listed	Medium
Cooperative Wholesale Society Building To North Of Junction With Hanover Street	Grade II listed	Medium
Former Synagogue	Grade II listed	Medium
Cheetham Town Hall Annexe (Former)	Grade II listed	Medium
Cooperative Press	Grade II listed	Medium
Cheetham Town Hall (Former)	Grade II listed	Medium

St Chad's Cheetham Hill First World War Memorial Cross	Grade II listed	Medium
Mynshulls House	Grade II listed	Medium
Detached Block of Schoolroom Approximately 20 Metres South of Chethams Hospital	Grade II listed	Medium
South east wing to Chetham's Hospital (former Manchester Grammar School)	Grade II listed	Medium
Main Prison Block of HMP Manchester	Grade II listed	Medium
Gatehouse of HMP Manchester	Grade II listed	Medium
Former Boys Prison Block of HMP Manchester	Grade II listed	Medium
The Tower of HMP Manchester	Grade II listed	Medium
Co-Operative Insurance Society (CIS) Building	Grade II listed	Medium
Holyoake House	Grade II listed	Medium
Cooperative Society Building (2)	Grade II listed	Medium
Cooperative Wholesale Society	Grade II listed	Medium
City Buildings	Grade II listed	Medium
Victoria Station including Concourse to rear with Restaurant and Booking Hall	Grade II listed	Medium
Shudehill Conservation Area	Conservation Area	Medium
The Cathedral Conservation Area	Conservation Area	High
Former Viaduct	NDHA	Low-Medium

Scope of Assessment

Identification of Effect/s which are Not Significant

- 6.119 At this stage of the design process, all heritage assets are scoped in for the purposes of identifying potentially Significant effects as a result of the Proposed Development. With final design material and verified views, a further scoping exercise will be undertaken for the purposes of the EIA which will aim to scope out any non-Significant effects revealed by an appraisal of the detailed material. Below, three likely Significant effects on heritage assets have been identified, although these are subject to review once the detailed design material and views have been analysed by SLHA.

Identification of Effect/s which are Likely to be Significant- Heritage

Table 6.22 Identification of Effects which are Likely to be Significant for Heritage

Effect	Receptor	Applicable Development Phase (C / O)
Potentially Significant beneficial effect on setting of the listed building	Union Bridge (Grade II listed)	O
Potentially Significant adverse effect on setting of the NDHA	Former Viaduct (NDHA)	C
Potentially Significant beneficial effect on setting of the NDHA	Former Viaduct (NDHA)	O

Assessment Methodology for Likely Significant Effects

- 6.120 The assessment methodology for the Historic Built Environment is a synthesis of established guidance, best practice and professional judgement. In accordance with an adapted form of the methodology set out in the ICOMOS Guidance on 'Heritage Impact Assessments' (January 2011), in which the value of heritage attributes is assessed in relation to statutory designations, and priorities or recommendations set out in national research agendas, and ascribed values. Professional judgement is then used to determine the importance of the resource. The heritage assets which might be affected by the Proposed Development are valued and the impact on them is assessed in order to give a significance of effect.
- 6.121 A Heritage Statement will be prepared to support the Built Heritage Chapter (forming a technical appendix) and accompanying the Planning Application. As stated above, the Heritage Statement will provide a detailed and robust baseline assessment of the identified heritage assets surrounding the Site, considering their significance and to what extent their setting contributes to an appreciation of this. This information will be summarised in the ES Chapter.
- 6.122 Reports will be prepared in general accordance with or with reference to the following legislation, policy and guidance:
- Planning (Listed Buildings & Conservation Areas) Act 1990;
 - National Planning Policy Framework (NPPF) Conserving and enhancing the historic environment (2024);
 - Historic England guidance: Conservation Principles Policies and Guidance (2008);
 - Historic England's Good Practice Advice Note 2: Managing Significance in Decision-Taking in the Historic Environment (2015);
 - Historic England's Good Practice Advice Note 3: The Setting of Heritage Assets (2017);
 - Historic England's Advice Note 12: Statements of Heritage Significance (2019); and
 - Historic England's Advice Note 4: Tall Buildings (2022).
- 6.123 The Heritage Statement will consider the indirect impact of the Proposed Development on heritage assets (i.e. change to setting or through indirect visual impact) of sensitive receptors within the defined study area (and beyond it where identified). The Heritage Impact Assessment ('HIA') will utilise relevant key views (prepared as Accurate Verified Views, 'AVRs')

to inform an understanding of the potential effects of the Proposed Development. The selection of viewpoint locations has been informed by ZTV, visual surveys, and an understanding of heritage, townscape and visual sensitivities in the local and wider townscape context of the Site. A total of 14 key views have been identified of which a number will be relevant for the HTVIA. The proposed representative viewpoint locations are provided at Figure 3 within Appendix 6.

- 6.124 To assess the potential magnitude and significance of effect of the indirect impact of the Proposed Development on heritage receptors, the following criteria is considered:
- The sensitivity and proximity of receptors (i.e. heritage assets);
 - The nature of the existing views (baseline and alternative baseline);
 - The degree of change to existing views (baseline and alternative) and the visibility of the Proposed Development; and
 - The availability and amenity of alternative views.
- 6.125 The assessment section of the Chapter will:
- Describe the potential impacts to the heritage assets as a result of the Proposed Development; and
 - Outline suitable mitigation measures to deal with the potential effects of the Proposed Development on heritage assets.
- 6.126 The language/criteria used to define the sensitivity of receptors, magnitude of impact, and the overall effect will be informed by that outlined in Appendix 4.
- 6.127 Potential heritage effects associated with the construction and operational phases of the Proposed Development will relate primarily to indirect temporary visual and setting impacts and indirect permanent visual and setting impacts. The scenarios which will be used to assess the Proposed Development in both the construction and operational phases will be:
- Scenario 1: Existing Baseline (existing Site);
 - Scenario 1a: Alternative Baseline (HIF)
 - Scenario 5: Baseline* + Phase A + Phase B + Phase C (in any order);
 - Scenario 5a: Baseline* + Phase A + Phase B + Phase C (in any order) + Cumulative.
- 6.128 Significant effects in EIA terms relate to effects categorised as Moderate, Moderate-Major, or Major. Any effects categorised below this – Minor-Moderate, Minor, Negligible, or None – are considered to be Not Significant. Please refer to Appendix 4 for relevant methodology matrix.

Human Health (Enfusion)

Consultation & Available Information, & Baseline Conditions

Consultation

6.129 No consultation has been undertaken or will be undertaken prior to submission of the application.

Completed Background Studies

Table 6.23 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Health data from Office for Health Improvement & Disparities (OHID previously Public Health England)¹⁹	Health profiles by local authority & compared with subregional (Manchester) & national – England; and Local Health data for Cheetham Ward	16 April 2024 & checked June 2025
English indices of deprivation 2019²⁰	Relative levels of deprivation in small areas/neighbourhoods called Lower-layer Super Output Areas LSOAs. The Index of Multiple Deprivation (IMD) is comprised of 7 domains – income, employment, health derivation & disability, Education skills & training, crime, Barriers to Housing & Services, Living environment.	16 April 2024 & checked June 2025
Health data from Manchester Intelligence Hub²¹	Area data by Ward - Cheetham	16 April 2024 & checked June 2025
LG Inform²² – Crime & Disorder	Crime data for last 12 months	December 2024
Google Maps²³	Location of key features & estimated distances from the Site Identification of potential sensitive receptors	17 April 2024 & checked June 2025

19 <https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/ati/302/are/E08000003> and https://www.localhealth.org.uk/#c=report&chapter=c01&report=r01&selgeo1=ward_2021.E05011356

20 <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019>

21 https://www.manchester.gov.uk/info/200088/statistics_and_intelligence/7611/intelligence_hub

22 <https://lginform.local.gov.uk/reports/view/lga-research/lga-research-report-police-recorded-crime>

23 <https://www.google.com/maps/place/Red+Bank,+Manchester/>

Baseline Conditions

- 6.130 There is no prescribed EIA definition for human health but the identification, description, and assessment of effects on human health is well established in the UK for Strategic Environmental Assessment (SEA). Consideration of human health and wellbeing within EIA is separate from Health Impact Assessment (HIA), although each process can inform the other. It is considered that most of the factors addressed in development proposals can have impacts on health and quality of life/wellbeing – both positive and negative, and both physical and mental - through townscape, air quality, climate change resilience, flood risk/water resources, noise, provision of/accessibility to good quality housing/buildings and employment, health and community services, transport, and provision of/accessibility to open space/green infrastructure.
- 6.131 The overall approach to human health will be to consider the summary findings of each relevant technical topic and align these with their interconnectedness into the themes for healthy urban planning. The key baseline from the other technical topics will be studied where relevant and including any specific sensitive receptors. It is not considered to be necessary to undertake primary research or surveys specific to the Human Health chapter. This is because the extent and nature of available information and the conclusions of other technical reports are sufficient to enable undertaking an appropriate and proportionate assessment of impacts on Human Health.
- 6.132 The human health assessment will consider impacts representing the worst case scenario against the existing baseline (existing Site and without the HIF ramped access). It will also consider a qualitative assessment of the future baseline – what is likely to happen if the Site is not developed.
- 6.133 According to OHID local authority profiles for Manchester and the 3 year period 2021-2023, life expectancy at birth for males is 75.2 years and 79.6 years for females. This compares for males with 77.5 (NW Region) and 79.1 (England); and for females with 81.6 (NW Region) and 83.1 (England). Under 75 mortality rate from all causes (2022) is 510.4 per 100,000 people, and this compares to 408.1 (North West Region) and 341.6 (England). For these life factors, Manchester residents remain in the worst 25th percentile for the range in English authorities, with no significant change in trend in recent years.
- 6.134 For behavioural risk factors, the percentage of physically active adults in Manchester is 64.7% which compares with 65.5% (North West Region) and 67.4% (England). Adults (aged 18 plus) classified as overweight or obese is 60.5% compared with 66.7% (North West Region) and 64.5% (England with a range of 42.6-77.2%). As regards child health, Year 6 prevalence of obesity (10-11 years) for period 2022-23 is 27.0%, compared to 23.3% (North West Region) and 22.1 (England with a range from 13.3% best to 31.0% worst). Hip fractures in people aged 65 and over is in the worst to 25th percentile at 648 for Manchester, compared with 578 (North West Region) and 547 (England with range 370 to 744). Inequality in life expectancy at birth (2021-2023) for males is 8.8 and for females is 6.8 years. This compares with 12.6 (NW Region) and 10.5 (England) for males, and 10.2 (NW Region) and 8.3 (England for females; this is above average with Manchester data being in the 50-75th percentile towards best. With regard to wider determinants of health, homelessness in Manchester is in the worst quartile (2023-24 data) at 26.6 and compares with 14.9 for the North West and 13.4 (range 12.0-170.5) for England.
- 6.135 The English Index of Multiple Deprivation (IMD) is a measure of relative deprivation for small areas or neighbourhoods (Lower-layer Super Output Areas LSOAs based on the 2011 Census) where 1 is the most deprived area and 32,844 is the least deprived. The IMD is compiled from

- 7 domains of deprivation – income; employment; education, skills, training; health & disability; crime; barriers to housing & services; living environment. According to OHID, the IMD score (2019) for Manchester is 40.0 which compares to 28.1 (North West Region) and 21.7 (England with a range from 5.8 to the worst at 45.0), and is in the worst to 25th percentile. The IMD Score (2019) for the Cheetham Ward is 42,269 which is in the middle of the range for Wards in Manchester – from 62.7 (most deprived) to 15.5 (least deprived).
- 6.136 The Manchester State of the City Report (2024) recognises that the health of Manchester has been amongst the poorest in England with noticeable differences between the most and least disadvantaged areas., and reducing health inequalities is a key objective for the City.
- 6.137 The Cheetham Area Profile further reports that the number of households in fuel poverty (2021) is 1,516 compared to the highest for Manchester at 2,282 and the lowest at 466. The number of residents aged 16+ who are claiming unemployment benefit is 1,195 in Cheetham with a range of 170 – 1,630 across all the Wards in Manchester.
- 6.138 The Local Health report for Cheetham Ward (OHID, 2021) shows a higher population of young people at 7.8% aged 0-4 and 16.6% 5-15 years compared with Manchester at 6.5/13.7 and England at 5.7/13.5 years. The population aged 16-24 is slightly lower at 11.8% compared with 17.5% for Manchester and 10.5% for England. The cohort for those aged 25-64 at 57.3% is slightly higher than for Manchester at 53% and England at 51.8%. The population for aged 65 & over years is 6.6 for Cheetham, compared with 9.3% for Manchester and 18.5% for England. This indicates that the Ward is characterised by young and working aged people, with less older people.
- 6.139 Ethnicity (2011) indicates that the population in Cheetham whose ethnicity is not “white” is 65.3% compared with 33.4% across Manchester and 14.6% for England. Income deprivation, child poverty, older people in poverty – are all significantly worse than England. Overcrowded housing is also significantly worse at 26% compared with 16.4% for Manchester and 8.7% for England. Unemployment (2021-22) is at 9.1% for the Ward compared with 7.4% for Manchester and 5.0% for England. Limiting long-term health conditions & morbidity (2011) is at 16.4% for Cheetham, significantly better than Manchester at 17.8% and England at 17.6%.
- 6.140 The LGA Inform report (to end 2023 Q3) ranks Manchester 36 out of 36 in all English metropolitan boroughs with 174.69 recorded crimes per 1,000 people (lowest was Trafford with 85.85 recorded crimes). The total number of reported street crime in Cheetham is 4,925 (2018, Intelligence Hub), compared with the range from 1,343 – 16,552.
- 6.141 With regard to health services and facilities, there are 2 health/GPs centres within approximately 1 mile of the Site to the north east on Cheetham Hill and to the west at Lower Broughton, and 2 others to the south-east within approximately 1.2 miles. There are 6 health centres/GPs to the south and variously 0.7-1.0 miles distance.in the city centre. There are 2 dentists within 0.5 miles of the Site and several to the south in the city centre about 0.7 miles distance. There are no schools or nurseries within the immediate vicinity of the Site but several primary schools around 1 mile distance to the north-east. There is various open and green space, especially towards the north-east, and easy sustainable access to diverse services and facilities in the city centre, including gyms and exercise studios.

Scope of Assessment

Identification of Effect/s which are Likely to be Significant

Table 6.24 Identification of effects which are likely to be Significant

Effect	Receptor	Applicable Development Phase (C / O)
Health & wellbeing – air, noise & vibration, safety	On-site workers Nearby residents, including any particularly sensitive receptors such care homes, schools	C
Health & wellbeing – socioeconomic including housing; employment & economy; services & facilities, open/green space	Local & wider communities	C & O
Health & wellbeing – air, noise & vibration, flood risk & water resources; Sunlight, daylight, overshadowing & solar glare; Climate change	New & nearby residents & visitors Workers & visitors at new commercial spaces	O
Health & wellbeing – townscape & visual impact	New & nearby residents & visitors Workers & visitors at new commercial spaces	O
Health & wellbeing – crime, safety	New & nearby residents & visitors	O

Assessment Methodology for Likely Significant Effects

- 6.142 There is no standard methodology for assessing health in EIA. The complexities of investigating health impacts are recognised, for example, by Public Health England (PHE, 2017) with their Wider Determinants of Health tool that details the multiple determinants for health and the need for cross-sectoral understanding. This guidance is primarily focused on spatial plan makers and public health practitioners, but the principles and checklist can be applied to major development proposals. The recent Health Impact Assessment in Spatial Planning (PHE, 2020) similarly focuses on spatial planning and Strategic Environmental Assessment (SEA) but does include an annex on integrating HIA in EIA and asserts the importance of a “*proportionate and justified approach*”.

- 6.143 The EIA professional body Institute of Environmental Assessment & Management (IEMA) has prepared outline guidance for practitioners – Health in EIA, a Primer for a Proportionate Approach (2017) - it is important that health in EIA is proportionate, balanced, and relevant. This guidance notes that there is an absence of specific significance criteria or defined thresholds for determining significance for population and health in UK EIA practice. Given the multitude of factors that contribute to an individual's health outcomes, it is difficult to draw a quantified conclusion regarding the contribution of a particular development to an increase or decrease in the number of additional cases of a particular physical or mental health outcome. More recently (November 2022), IEMA has published guidance on effective scoping and assessment of human health in EIA. This includes five categories for the wider determinants of health – Health related Behaviours; Social Environment; Economic Environment; Biophysical Environment; and Institutional & Built Environment.
- 6.144 Themes are also identified by the Healthy Urban Development Unit HIA Tool (2017, 2019), as follows – Healthy Housing/Buildings; Active Travel; Healthy Environment; and Vibrant Neighbourhoods. This HUDU checklist aims to promote healthy urban planning by ensuring that the health and wellbeing implications of major planning applications are consistently considered, through providing a set of themes and planning issues that can be used to assess development proposals. The HUDU tool recognises eleven topics or broad determinants of health and wellbeing focused on the built environment and issues influenced by planning decisions. The HUDU tool aligns with the wider determinants of health listed in the IEMA guidance and better correlates with proposed developments in a city centre context.
- 6.145 Housing/Building Design, including affordability, is fundamental for health and wellbeing and together with accessibility to health and social care services and other social infrastructure. Access to open space and nature; Air quality, noise and neighbourhood amenity; Accessibility and active travel; and Crime reduction and community safety are relevant to health and wellbeing associated with the Proposed Development. It is understood that socioeconomics, air quality, noise and vibration are each considered to have likely significant effects and have all been scoped into the EIA process. Townscape & Visual Impact and Heritage are also considered to have likely significant effects and scoped into the EIA process. These factors also interact and contribute to the health and wellbeing of residents, workers and visitors. Transport is likely to be scoped out of the EIA as the Site is in a very sustainable location with good access to active travel that is known to promote healthy living.
- 6.146 Access to healthy food is beyond the scope of the Proposed Development, although an urban location near the city centre indicates the potential for a variety of food resources. Access to work and training is well known to affect health and wellbeing - employment and the local economy will be considered through the socioeconomic impact assessment. Some elements of Social cohesion and inclusive design may be relevant to the Proposed Development and contribute to health-related behaviours and the social environment – for example, avoidance of barriers and spaces that encourage connectivity with existing communities.
- 6.147 Minimising the use of resources and climate change are key factors in considering environmental sustainability, a healthy environment, and reducing risks to health and wellbeing from the predicted effects of climate change. Daylight/Sunlight/Overshadowing/Solar Glare, and Climate Change effects are likely to have significant effects and have been scoped into the EIA process.
- 6.148 The overall approach to human health will be to consider the summary findings of each relevant technical topic – townscape and visual impacts; sunlight/daylight/overshadowing/solar glare; socioeconomics; climate change; noise &

vibration; air quality; heritage; and water resources/flood risk/drainage - and align these with their interconnectedness into the themes for healthy urban planning, taking into account the relevant broad determinants of health as set out by the HUDU. Different study areas will be used for the assessment of individual human health impacts, according to each relevant technical topic.

6.149 The Human Health chapter will consider Scenario 5: Baseline + Phase A + Phase B + Phase C and Scenario 5a: Baseline + Phase A + Phase B + Phase C + Cumulative

6.150 Sensitive receptors will include:

- Onsite workers during construction.
- Existing residents, businesses, educational facilities, healthcare facilities, and communities around the Site, as well as any other sensitive receptors identified by the technical assessments.
- Future users and visitors of the Site.

6.151 Effects that are described as ‘minor’ or ‘negligible’ are determined to be ‘Not Significant’ and effects that are described as ‘moderate’ or ‘major’ are determined to be ‘Significant’. This takes into account the sensitivities of receptors as high, moderate, low. The criteria and categories of significance applied in the health impact assessment are, as follows:

- Major Adverse/Beneficial – important considerations at local or district scale; if adverse, are potential concerns to the project and may become key factors in the decision-making process.
- Moderate Adverse/Beneficial – modest important local effects that, if adverse, are not likely to be key issues for decision-making.
- Minor Adverse/Beneficial – Slight, short, or highly localised effects that, if adverse, are unlikely to be important in the decision-making process.
- Negligible – no appreciable effects on health factors.

6.152 Each technical impact assessment is subject to its own standards, regulations, and methods of assessment. Standardised sectoral thresholds and significance criteria will be used for each of the relevant technical factors that contribute to health and wellbeing. The overall likely significant effects on health will then be determined in a qualitative way using professional judgment and being mindful of the planning policy requirements for maximising positive contributions to health whilst avoiding potential negative impacts, and supporting healthy lifestyles. The key impacts for health will be considered and inter-relationships will be integrated within the themes identified for healthy urban living, such that any significant impacts for human health are clearly presented in a separate chapter.

Noise and Vibration (Cundall)

Consultation & Available Information, & Baseline Conditions

6.153 Consultation Manchester City Council Environmental Health was consulted on 30 August 2023, with a response received on 19 September 2023 confirming Local Planning Authority noise policy requirements for internal ambient noise level guidance and assessment methodologies. No further consultation is required pre-submission of the application.

Completed Background Studies

Table 6.25 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Baseline noise survey	Long-term unattended measurements at two positions at the Application Site to quantify baseline noise ambient noise levels at the Proposed Development and identify existing representative background sound levels at nearby existing and proposed noise-sensitive receptors	8 – 13 September 2023

Baseline Conditions

- 6.154 The unattended noise survey was undertaken between 8 and 13 September 2023 at two separate positions within the red line boundary. The measurement positions are detailed in Cundall drawing RED-CDL-XX-XX-D-AS-45800 – Baseline Noise Survey Locations’ included in Appendix 5.
- 6.155 The results of the long term-term unattended measurements (MP1 – MP2) are presented in the following table.
- 6.156 Note: Extraneous noise associated with operations at the GRUB bar currently located at the site (to be demolished as part of the Application) have been omitted from the survey data. Similarly, periods dominated by construction noise from adjacent schemes at Dantzie Street have also been omitted.

Table 6.26 Background Noise Survey Results

Position	Period	Date	Average $L_{Aeq,T}$ dB	10 th Highest $L_{AFmax,2min}$ dB	Range $L_{A90,15min}$ dB
MP1	Daytime (07:00 – 23:00)	08/09/2023	62	-	43 - 51
		09/09/2023	61	-	42 - 56
		10/09/2023	60	-	40 - 50
		11/09/2023	63	-	40 - 52
		12/09/2023	65	-	43 - 54
		13/09/2023	65	-	49 - 52
	Night-time (23:00 -07:00)	08/09/2023	53	75	37-49
		09/09/2023	54	76	38-51
		10/09/2023	54	77	35-45
		11/09/2023	54	75	37-41

		12/09/2023	55	77	38-49
MP2	Daytime (07:00 – 23:00)	08/09/2023	56	-	47-56
		09/09/2023	57	-	41-61
		10/09/2023	51	-	40-52
		11/09/2023	52	-	41-51
		12/09/2023	53	-	43-54
		13/09/2023	55	-	49-53
	Night-time (23:00 -07:00)	08/09/2023	48	65	36-54
		09/09/2023	47	66	37-53
		10/09/2023	45	69	34-45
		11/09/2023	42	64	38-43
		12/09/2023	46	65	38-48

6.157 The following table identifies the subjective impressions and analysis of recorded audio data identified were that the noise climate was dominated by road traffic noise at all locations.

Table 6.27 Background Noise Survey Results – Short Term Measurement Positions

Position	Assigned sensitive receptor	Subjective comments
MP1	Existing nearest residential receptors at: - Hornbeam Way Apartment Building - Lincoln Gate Apartment Building Proposed Development residential receptors at: - Phase A: Block A - Phase B: Block B	Ambient noise climate dominated by road traffic along Red Bank. During the night-time Red Bank is lightly trafficked but cars generally passed by site at high speeds.
MP2	Off-site proposed residential receptors at: Land at Red Bank Victoria (ref: 136812/00/2023)	Ambient noise climate was noted to comprise a mixture of road traffic noise from the surrounding highways network (including Red Bank) as well as occasional rail noise heard between lulls in local traffic.

6.158 Noise associated with nearby light industrial and commercial uses was not audible at any time at either of the measurement locations. Furthermore, no sources of entertainment noise were identified during the surveys.

Scope of Assessment

Identification of Effect/s which are Not Significant

Table 6.28 Identification of effects which are not significant

Effect	Nuisance and disturbance as a result of noise and from construction traffic	Applicable Development Phase (C / O)	C	Receptor	All existing structures, dwellings, and their occupants.
Discussion of Effect					
Construction traffic has the potential to result in nuisance and or adverse health effects due to increased noise at noise-sensitive receptors					
Mitigation Committed to in order to Avoid or Reduce Effect					
All Heavy Duty Vehicle (HDV) construction vehicles will be routed via appropriate and logical transport corridors to minimise disruption and environmental noise impacts. The proposed routing strategy is as follows: • All HDVs will approach the site via the A-road network, entering from the north onto North Street / Red Bank. • Vehicles will exit the site via Lord Street, rejoining the A-road network. This separation of arrival and departure routes offers noise mitigation benefits by reducing the likelihood of two-way HDV movements past the same noise-sensitive receptors. As a result, local receptors will experience fewer repeated disturbances from the same vehicles. The anticipated Annual Average Daily Traffic (AADT) for Heavy Duty Vehicles (HDVs) is approximately 33 two-way movements. However, due to the use of separate access and egress routes, these can effectively be considered as one-way trips. This volume is significantly lower than the existing baseline AADT flow values of over 2,500 vehicles in the vicinity of the site. Furthermore, due to the constrained site footprint, no on-site parking will be provided for construction staff. Workers travelling by private vehicle will be directed to use established public car parks located within a 15-minute walking distance of the site. On-street parking on surrounding residential roads will be strictly prohibited for all construction personnel. Given the very low volume of HDV movements relative to existing traffic levels, and the absence of on-site staff parking, the potential for noise nuisance or disturbance from construction traffic is not considered to be significant. Consequently, construction traffic noise will not be assessed further within the Environmental Impact Assessment (EIA) or reported in the Environmental Statement (ES).					
Concluding Statement					
Through implementation of suitable committed tertiary mitigation measures, nuisance and disturbance as a result of noise from construction traffic is not considered to be significant and will not be considered further in the EIA or reported in the ES.					

Table 6.29 Identification of effects which are not significant

Effect	Nuisance and disturbance as a result of vibration impacts from railway movements	Applicable Development Phase (C / O)	O	Receptor	Proposed Residential Dwellings
Discussion of Effect					
Rail movements have the potential to result in nuisance and/or adverse health effects due to human exposure to vibration					
Mitigation Committed to in order to Avoid or Reduce Effect					
The red line boundary is located at approximately 200 m from the nearest railway track to the south of the site. At such distances the resultant vibration impacts from any rail movements will be imperceptible. No additional mitigation has therefore been identified.					
Concluding Statement					
Vibration impacts from rail movements at the Proposed Development are considered imperceptible and will not be considered further in the EIA or reported in the ES.					

Table 6.30 Identification of effects which are not significant

Effect	Nuisance and disturbance as a result of increase to road traffic noise	Applicable Development Phase (C / O)	O	Receptor	All existing and proposed sensitive receptors
Discussion of Effect					
Operational traffic has the potential to result in nuisance and or adverse health effects due to increased noise at noise-sensitive receptors					
Mitigation Committed to in order to Avoid or Reduce Effect					
With respect to changes in noise levels as a result of changes to road traffic flows, the DMRB²⁴. states the following: <i>"In the period following a change in traffic flow, people may report positive or negative benefits when the actual noise changes are as small as 1 dB(A). As this noise change is equivalent to an increase of 25% or a decrease in traffic flow of 20%, this reaction may be partly attributed to an awareness of the changes in traffic rather than noise."</i> It has been confirmed by the project Transportation Consultant that the increase in predicted annual average weekly traffic (AAWT) flows associated with the Proposed Development will be 6%. This is					

24 Design Manual for Roads and Bridges, Sustainability & Environment Appraisal LA 111 Noise and Vibration Revision 2

significantly lower than the 25% increase necessary to result in a 1 dB(A) increase to existing road traffic noise levels and the magnitude of effect would therefore be considered neutral.

No additional mitigation has therefore been identified.

Concluding Statement

Nuisance and disturbance as a result of changes to road traffic noise is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Identification of Effect/s which are Likely to be Significant

6.159 Receptors are identified in Cundall figure 'RED-CDL-XX-XX-D-AS-45801 – Noise and Vibration Sensitive Receptors Plan' Included in Appendix 5.

Table 6.31: Identification of effects which are likely to be significant

Effect	Receptor	Applicable Development Phase (C / O)
Nuisance and disturbance as a result of noise from construction activities	Existing nearest residential receptors at: - Hornbeam Way Apartment Building - Lincoln Gate Apartment Building Proposed Development residential receptors at: - Phase A: Block A - Phase B: Block B Off-site proposed residential receptors at: - Land at Red Bank Victoria (ref: 136812/OO/2023)	C
Nuisance and disturbance as a result of vibration from construction activities	Existing nearest residential receptors at: - Hornbeam Way Apartment Building - Lincoln Gate Apartment Building Proposed Development residential receptors at: - Phase A: Block A - Phase B: Block B Off-site proposed residential receptors at: - Land at Red Bank Victoria (ref: 136812/OO/2023)	C
Noise impacts at proposed new dwellings (internal)	Proposed Development residential receptors at: - Phase A: Block A - Phase B: Block B	O
Nuisance and disturbance as a result of commercial / industrial noise from external building services plant	Existing nearest residential receptors at: - Hornbeam Way Apartment Building - Lincoln Gate Apartment Building Proposed Development residential receptors at: - Phase A: Block A - Phase B: Block B Off-site proposed residential receptors at:	O

	Land at Red Bank Victoria (ref: 136812/00/2023)	
Nuisance and disturbance as a result of commercial / industrial noise	Existing nearest residential receptors at: - Hornbeam Way Apartment Building - Lincoln Gate Apartment Building Proposed Development residential receptors at: - Phase A: Block A - Phase B: Block B Off-site proposed residential receptors at: - Land at Red Bank Victoria (ref: 136812/00/2023)	O

Assessment Methodology for Likely Significant Effects

- 6.160 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.
- 6.161 For the purpose of the Noise & Vibration Chapter, it is proposed that all identified receptors have a 'high' sensitivity to noise and vibration impacts.
- 6.162 For noise and vibration impacts, several factors will be considered when identifying whether significant effects have occurred, such as:
- The context in which the impact occurs;
 - The duration of the impact;
 - The sensitivity of the receptor; and
 - The number of receptors affected.
- 6.163 Where the identified level of effect is equal to or lower than minor adverse/beneficial, noise and vibration impacts are considered a 'Not Significant'.
- 6.164 Where the level of effect is equal to or higher than moderate adverse/beneficial, noise and vibration impacts are be considered a 'Significant'.

Nuisance and disturbance as a result of noise from construction activities

- 6.165 BS 5228-125 provides practical information on demolition and construction noise reduction measures and promotes a 'Best Practice Means' approach to control noise and vibration. The calculation method provided in BS 5228 is based on the numbers and types of equipment operating, their associated Sound Power Levels (SWL), and the distance to receptors, together with the effects of any screening.
- 6.166 There are no current national standards that give mandatory noise limits for construction sites. However, as a guide, typical daytime levels for noisy temporary works at neighbouring premises usually lie in the range of 70 – 80 dB LAeq.

25 BS 5228-1:2009+A1:2014 Code of practice for noise control on construction and open Sites (BS 5228-1)

6.167 It is therefore recommended that the following good practice limits apply to construction noise:

- 70 dB LAeq,T Monday – Friday (08:00 – 18:00); and
- 70 dB LAeq,T Saturday – Sunday.

6.168 The Magnitude criteria for construction noise have been derived from BS 5228-1 guidance. A semantic scale for description of the magnitude of construction noise effects is shown in below.

Table 6.32 Construction Noise Magnitude Criteria

Magnitude	Description
Major	Daytime noise levels greater than 75 dB LAeq for a total of less than 10 days in any 15-day period, or for a total of days less than or equal to 40 in any 6-month period
Moderate	Daytime noise levels between 70 and 75 dB LAeq
Minor	Daytime noise levels between 65 and 70 dB LAeq
Negligible	Daytime noise levels less than or equal to 65 dB LAeq
Neutral	Daytime noise levels more than 10 dB below existing background l

6.169 Sound level associated with assumed plant items will be calculated at defined noise-sensitive receptors using SoundPLAN v9.1 sound modelling software using the propagation method contained in ISO 9613-2:1996.

6.170 The Proposed Development is envisaged to be phased as follows:

- Phase A: Block A (South Block)
- Phase B: Block B (North Block)
- Phase C: Land to the South.

6.171 However, as the Proposed Scheme may potentially be delivered either as a single phase or through a phased approach with any phase potentially coming forward at any time, it is proposed to assess construction noise impacts using a cumulative worst-case scenario. This assessment assumes the simultaneous construction of all phases, namely:

- Scenario 5 Phase A + Phase B + Phase C

6.172 This approach ensures that the assessment captures the maximum potential impact, providing a robust basis for evaluating construction noise regardless of the final delivery strategy.

6.173 The potential for cumulative effects at identified noise-sensitive receptors from relevant schemes identified in the Committed Development Schedule will also be assessed (Scenario 5a).

Nuisance and disturbance as a result of vibration from construction activities

- 6.174 BS 5228-226 provides further guidance on the perception of vibration resulting from construction activities within occupied buildings. This provides a simple method of determining annoyance alongside evaluation of cosmetic damage associated with vibration.
- 6.175 The table below details potential vibration levels measured in terms of 'Peak Particle Velocity' (PPV), and provides a semantic scale for description of construction vibration impacts on human receptors.

Table 6.33 Construction Vibration Magnitude Criteria – Human Response

Peak Particle Velocity Level	Description	Magnitude
10 mm/s	Vibration is likely to be intolerable for any more than a very brief exposure to this level.	Major
1.0 mm/s	It is likely that vibration of this level in residential environments will cause complaint but can be tolerated if prior warning and explanation has been given to residents.	Moderate
0.3 mm/s	Vibration might be just perceptible in residential environments.	Minor
0.14 mm/s	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction. At lower frequencies, people are less	Negligible
0 mm/s	No vibration perceptible	Neutral

- 6.176 Construction activities that produce vibration may impact on adjacent buildings. The criteria used in this assessment relate to the potential for cosmetic damage, not structural damage. The principal concern is generally transient vibration due to piling, which at this stage cannot be ruled out as necessary. Cosmetic damage is most likely to occur within the first 20 metres (m) of piling activities; at greater distances damage is less likely to occur. Likely levels of vibration at given distances can be estimated from existing piling vibration data, as provided in BS 5228-2.
- 6.177 BS 738527 establishes the basic principles for carrying out vibration measurements and processing the data, with regard to evaluating vibration effects on buildings. Recommended PPV vibration limits for transient excitation for different types of buildings are presented in the following table.

26 BS 5223-2:2009 Code of practice for vibration control on construction and open Sites (BS 5228-2)

27 BS 7385-2:1993 Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration (BS 7385).

Table 6.33 Peak Particle Velocity Limits for Cosmetic Damage to Non-Heritage Asset Buildings

Type of building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse ¹	
	4 Hz to 15 Hz	15 Hz and above
Reinforced or framed structures	50 mm/s at 4 Hz and above	
Industrial and heavy commercial buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz ²	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above
1 - Values referred to are at the base of the building; 2 - At frequencies below 4 Hz, a maximum displacement of 0.6 mm (zero to peak) should not be exceeded; mm/s – millimetres per second.		

6.178 Where vibration experienced at structures exceeds the values shown in the table above (for either type of structure), this would be considered to be a significant adverse impact.

6.179 As the Proposed Scheme may potentially be delivered either as a single phase or through a phased approach with any phase potentially coming forward at any time, it is proposed to assess construction noise impacts using a cumulative worst-case scenario. This assessment assumes the simultaneous construction of all phases, namely:

- Scenario 5 Phase A + Phase B + Phase C

6.180 The potential for cumulative effects at identified noise-sensitive receptors from relevant schemes identified in the Committed Development Schedule will also be assessed (Scenario 5a).

Nuisance and disturbance as a result of commercial / industrial noise from external building services plant

6.181 Industrial noise emissions will be assessed in accordance with the methodology set out in BS 414228. This standard provides an assessment methodology and criteria relating to the following industrial noise sources:

- sound from industrial and manufacturing processes;
- sound from fixed installations which comprise mechanical and electrical plant and equipment;
- sound from the loading and unloading of goods and materials at industrial and/or commercial premises; and
- sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train or ship movements on or around an industrial and/or commercial site.

6.182 BS 4142 primarily provides a numerical assessment by which to determined significance of industrial/commercial sound at residential noise-sensitive receptors. The specific sound may

28 BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS 4142)

then be corrected for the character of the sound (e.g. acoustic features such as tonality, impulsiveness and intermittency) and is then termed the 'rating level'.

- 6.183 Specific sound levels will be determined separately (in terms of LAeq,T) for BS 4142 daytime (07:00-23:00) and night-time (23:00 – 07:00) periods of T = 1 hour and T = 15 minutes, respectively.
- 6.184 Specific sound levels associated with commercial/industrial noise sources will be calculated at defined noise-sensitive receptors using SoundPLAN v9.0 sound modelling software using the propagation method contained in ISO 9613-2:1996.
- 6.185 The industrial commercial noise sources associated with the Proposed Development which will be considered within the noise modelling exercise are as follows:
- External plant noise emissions – noise attributable to fixed external noise generating plant (e.g. air handling units, cooling plant, generators) will be modelled, along with directivity of emission sources where relevant.
- 6.186 The proposed criteria for the initial numerical assessment of the magnitude of impact of industrial noise emissions from the Proposed Development are provided below in Table 13:15 and are based on the relative level difference between the numerical BS 4142 rating levels (LAR,Tr) and the representative background sound levels (LA90,T).

Table 6.34 BS4142 Noise Management Criteria – initial numerical assessment

Difference between rating levels and representative background sound level (dB)	Magnitude
Greater than +10	Major
+5 to +10	Moderate
-5 to +5	Minor
-5 to -10	Negligible
<-10	Neutral

- 6.187 Importantly, BS 4142 requires that the initial numerical rating level of the noise source under assessment be considered in the context of the environment when defining the overall significance of the impact.
- 6.188 In order to represent a 'worst-case' scenario, the assessment of commercial / industrial noise from external building services plant will consider the simultaneous operation of all phases, namely:
- Scenario 5: Phase A + Phase B + Phase C (alternative baseline with HIF)
- 6.189 The potential for cumulative effects at identified noise-sensitive receptors from relevant schemes identified in the Committed Development Schedule will also be assessed (Scenario 5a).

Noise impacts at proposed new dwellings (internal)

- 6.190 Manchester City Council has requested that noise mitigation measures during the operation phase of the Proposed Scheme ensure that the following standards are attained with respect to residential accommodation on the Site as stipulated in BS 823329 , detailed below;

Table 6.35 Indoor / External Ambient Noise Level Magnitude Criteria at New Dwellings

Location	Daytime (07:00 – 23:00)	Night-time (23:00-07:00)
Living Room	35 dB $L_{Aeq,16hour}$	--
Dining rooms	40 dB $L_{Aeq,16hour}$	--
Bedrooms	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8\text{ hour}}$ and 45 dB L_{Amax} for typical noise events

- 6.191 While this figure of 50 dB is stated as a fixed value criterion, it is worth noting that BS 8233 states the following with regard to external amenity areas:

“For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$ with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited.”

- 6.192 In addition, the following guidance³⁰ has been presented by MCC:

“External noise intrusion during periods of summertime overheating – the assessment should include an AVO assessment.

If there is a gym to be included as part of the development then gym noise assessment will need to be based on the ProPG Gym Acoustics Guidance and adopt the lower end of the relevant G Curve range.”

- 6.193 The assessment of road traffic noise impacts across the proposed development will be undertaken using SoundPLAN 9.1 3D noise modelling software and based on the baseline noise data obtained from the surveys documented above.

²⁹ BS 8233: 2014: Guidance on Sound Insulation and Noise Reduction for Buildings

³⁰ Email correspondence from Manchester City Council Environmental Health to Michael Pimlott (Cundall) on 28/09/2021

Socio Economics (GC Insight)

Consultation & Available Information, & Baseline Conditions

Consultation

- 6.194 No consultation has been to date with regards to Socio Economic. No further consultation is required pre-submission of the application.

Completed Background Studies

Table 6.36 Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Socio-economic analysis	Initial analysis of local authority and ward level socio-economic data sets including population and employment statistics from the Census 2021, various publicly available survey data accessed through Nomis and data provided by the Department for Education and NHS Digital.	June 2025

Baseline Conditions

- 6.195 The Site is located to the north east of Manchester City Centre within the Cheetham ward. As outlined below (Assessment Methodology for Likely Significant Effects), the appropriate Study Area to consider varies according to different socio-economic receptors. For the purposes of this initial assessment of baseline conditions, district level (Manchester City Council - MCC) statistics are used and benchmarked against sub-regional (Greater Manchester), regional (North West) and national comparators, wherever possible. For some socio-economic receptors (such as those relating to social and community infrastructure), there is often a need to consider smaller, bespoke catchments, relating to national guidance (e.g. statutory walking distances set out by the Department for Education) or relevant local policies.
- 6.196 The Site is located within the Cheetham ward which has a total population of 21,749 residents, 14,985 of whom are of working age (69%).³¹ At the local authority level, Manchester is estimated to have a population of 579,917³² and the proportion of working age residents (71%) is higher than the Greater Manchester (64%), North West (62%) and national (63%) averages. The Manchester local authority area has a lower proportion of residents aged over 65 (9%) compared to Greater Manchester (16%), the North West and nationally (19% each), and Cheetham ward records a lower proportion still (6%).
- 6.197 The existing Site contains the 'GRUB' food market. It is not known how many jobs this business supports and further clarification as to how the Proposed Development proposes to deal with existing on-Site uses will be sought in the development of the Socio-Economic chapter.

31 ONS 2023, Population Estimates by single year of age and sex for 2023 Electoral Wards, mid-2022

32 ONS 2023, Population Estimates – Local Authority based by single year of age

- 6.198 Total employment (jobs) in the Cheetham ward stood at 13,910 in 2023.³³ In terms of the employment structure, 18% of employment within the Cheetham ward is within the 'Wholesale' sector which is significantly higher than the Greater Manchester average (4%). The second largest sector by employment in Cheetham, Retail, constitutes 17% of all employment and has a higher share compared to Greater Manchester and the North West (9% each) and nationally (8%). Compared to the national share of employment, Cheetham ward is overrepresented in both 'Wholesale' and 'Retail' (location quotients of 4.8 and 2.1 respectively).³⁴ Other overrepresented sectors in terms of employment include 'Public administration and defence' (1.4), and 'Business administration and support services' (1.2).
- 6.199 The Greater Manchester construction sector supports economic output (as measured in terms of Gross Value Added) of approximately £6.4 billion³⁵ per year. For every full time equivalent (FTE) construction job, this equates to an average GVA contribution of £106,100 per annum. This represents a higher output average compared to the all-sector average for Greater Manchester (£85,600). Average annual economic output per FTE is also higher than the all-sector average for the following Greater Manchester sectors: 'Information and communications' (£88,500) and 'Financial and Insurance Activities' (£187,500). The 'Professional, Scientific and Technical' sector (£70,900) is lower than the all-sector average.
- 6.200 Cheetham ward's claimant count unemployment (10%) is higher than that of the benchmark areas of Manchester (6%), Greater Manchester (5%), the North West region and the national average (4% each).³⁶ Similarly, the unemployment rate for Manchester (9%)³⁷ is higher than that of the benchmark areas of Greater Manchester (5%), and North West and England (4% each).³⁸ Manchester has a higher proportion of people in employment (54%) within professional, managerial and technical occupations (SOCs 1-3) compared to benchmark areas. Manchester also has a higher proportion of people with RQF4+³⁹ qualifications (46%) compared to benchmark areas, with the exception of the national average (47%). The proportion of residents with no formal qualifications in Manchester (8%) is also low compared to benchmark areas, except the national average (6%).⁴⁰
- 6.201 In terms of local educational provision, within an approximate 1 mile walking distance of the Site there are 6 state primary schools for which pupil roll and capacity data is available. There are 5 state secondary schools located within an approximate 2-mile walking distance of the Site.⁴¹ The latest data (2024 School Census) indicate that primary schools are operating at a surplus capacity of 8.3% pupil places within this distance radius from the Site. This is a marginally higher level of surplus capacity compared to all Manchester City Council primary schools (7.1%). Secondary schools within the distance radius are operating at a surplus capacity of 5.9%, which is lower than the average for all Manchester City Council secondary school (7.2%)⁴². Within 1 mile of the Proposed Development, there is 1 nursery – Collyhurst Nursery School, which is 0.8 miles away from the Site.

33 ONS, 2023, Business Register and Employment Survey

34 A location quotient (LQ) measures the degree to which a local area is represented compared against a nation as a whole. A LQ >1 indicates a higher level of representation compared to the national average.

35 ONS, 2023, Regional GVA by industry and region

36 ONS, Claimant Count, May 2025

37 Ward level Annual Population Survey data is not available (unemployment, occupational and skills profiles)

38 ONS, 2024, Annual Population Survey

39 RQF - Regulated Qualifications Framework

40 ONS, 2024, Annual Population Survey

41 Get Information about Schools - GOV.UK (get-information-schools.service.gov.uk)

42 Department for Education School Capacity Statistics 2023/24

- 6.202 In terms of local health service provision, there are 6 GP practices located within an approximate 1 mile walking distance of the Site⁴³. According to latest available data, these are currently operating at an average of 2,340 patients to every FTE GP which is above the Healthy Urban Development Unit benchmark of 1,800 patients per FTE GP. The two closest GPs – ‘City Health Centre’ and ‘Rochdale Road Surgery’ – are operating at an average of 3,245 and 2,505 patients to every FTE GP, respectively⁴⁴. In terms of local dental provision, there are 7 dentists within approximately 1-mile, the nearest of which is New Cross Dental Surgery, located 0.4 miles away.⁴⁵
- 6.203 The nearest green space is St Catherine’s Park, which is 0.2 miles walking distance away from the centre of the Site. There are several other recreational sites within walking distance of the site such as St Michael’s Flags & Angel Meadow Park, Sand Hills, Peachstone Henge, Queens Park, and Smedley Lane Playing Fields. St Michael’s Flags and Angel Meadow Park includes a historic burial site and park, with art installations and grassy areas, sitting 0.4 miles from the Site.
- 6.204 Manchester City Council’s revenue budget for 2025/26 indicates that the projected income from Council Tax is in the order of £248m.⁴⁶ The projected income from Business Rates / Settlement Related Funding is in the order of £428m. Receipts are used to pay for essential local services including police, fire and waste collection.

Scope of Assessment

Identification of Effect/s which are Not Significant

Table 6.37 Effects which are not significant

Effect	Construction worker spending	Applicable Development Phase (C / O)	C	Receptor	Local economy
Discussion of Effect					
It is not possible to make a robust assessment of the quantity of ‘local’ spending from construction workers. There is also no industry standard or accepted guidance on how much, on average, each construction worker spends daily in the area local to which they carry out their work. There is some published anecdotal evidence on worker spending in general, which is sometimes referred to in case-making economic statements but this is not specific to the construction industry. One of the most commonly referred to sources (although not construction worker specific) is research commissioned by the New York Bagel Company which found that British workers spend between £6 and £15 every day on lunch.⁴⁷ Taking into account the 69,500 construction jobs currently based in Greater Manchester this would equate to between £0.4 million and £1.0 million in spending per day. At this stage, an estimate of construction workers associated with the Proposed Development is not yet possible based on the information that has been made available to date; however, based on similar sized schemes that GC Insight have estimated for recently, it is likely to be less than 300 workers per annum over the construction period. Spending from these workers would equate to between £1,800 and £4,500 per					

43 GP surgeries near M4 4HF - NHS (www.nhs.uk)

44 General Practice Workforce, 30 April 2025 - NHS England Digital

45 Dentists near M4 4HF - NHS (www.nhs.uk)

46 Manchester City Council, Medium Term Financial Strategy and 2025/26 Revenue Budget

47 One in three Brits are eating the same lunch every single day (inews.co.uk)

day accounting for less than 0.5% of spending per day in Greater Manchester, and is therefore considered insignificant. It is therefore appropriate to scope out an assessment of local construction worker spending effects from the ES.
Mitigation Committed to in order to Avoid or Reduce Effect
N/A
Concluding Statement
Construction worker spending to be scoped out of Socio-economics

Table 6.38 Effects which are not significant

Effect	Labour supply effects	Applicable Development Phase (C / O)	O	Receptor	Local economy
Discussion of Effect					
The new residential population associated with the Proposed Development will include working age residents, a proportion of whom will be economically active and potentially add to the labour supply in Manchester. However, in the context of existing district levels of economically active residents (c.285,000), ⁴⁸ the increase in economically active residents arising from the Proposed Development (estimated at 0.3% ⁴⁹) is unlikely to be significant. It is therefore appropriate to scope out an assessment of labour supply effects from the ES.					
Mitigation Committed to in order to Avoid or Reduce Effect					
N/A					
Concluding Statement					
Labour supply effects to be scoped out of Socio-economics					

Table 6.39: Effects which are not significant

Effect	Reduction in crime or fear of crime	Applicable Development Phase (C / O)	O	Receptor	Resident Population
Discussion of Effect					

⁴⁸ ONS Annual Population Survey (2024)

⁴⁹ A provisional estimate of 790 working age residents from the Proposed Development. In lieu of not having a unit mix available at this stage of project development, this is based on applying an average household size for the Cheetham ward of 3.1 (Census 2021 – assumed to be an extreme worst case in terms of population yield), the ward's existing working age population (69%) and a district level economic activity rate (73%) to the total maximum number of homes to be delivered (509).

The proposed uses have the potential to lead to a reduction in crime and fear of crime through 'Secured by Design' compliance which promotes and incorporates good design quality, layout and lighting. Whilst beneficial, these are unlikely to be significant in EIA terms and therefore recommended to be scoped out.
Mitigation Committed to in order to Avoid or Reduce Effect
N/A
Concluding Statement
Reduction in crime or fear of crime to be scoped out of Socio-economics

Identification of Effect/s which are Likely to be Significant

Table 6.40: Effects which are Likely significant

Effect	Receptor	Applicable Development Phase (C / O)
Temporary employment within the construction sector	Individuals seeking construction employment	C
Provision of new housing	Local (district) housing supply	O
Net change in operational employment	Individuals seeking employment	O
Contribution to economic performance (through uplift in household spend and GVA)	Local economy	O
Effect on annual fiscal contributions	Local authority revenue	O
Additional demand for early years, primary and secondary school places	Education facilities	O
Additional demand for healthcare facilities (GP services and dentists)	Primary healthcare facilities	O
Effect on capacity of open space and play space	Users of open space and play space	O

Assessment Methodology for Likely Significant Effects

Scenarios to be Tested

6.205 It is proposed that this chapter will test a worst-case scenario. The scenarios to be tested would therefore include:

- Scenario 1: Existing Baseline (existing Site)
- Scenario 5: Baseline + Phase A + Phase B + Phase C
- Scenario 5a (Scenario 5 plus Cumulative)

The Study Area

6.206 In respect of socio-economics, the effects of the Proposed Development will be considered across the following geographies:

- Local Impact Area (LIA) – the definition of the LIA varies depending on the effect being assessed and any associated need to use bespoke catchments and/ or administrative spatial scales as set out within relevant local and regional policies.
- District – Manchester City Council (MCC) is identified as the administrative area in which the Proposed Development is located and the area in which housing and employment targets are set.
- Sub-regional – Greater Manchester is predominantly considered when assessing temporary construction employment effects of the Proposed Development.

6.207 Wherever possible, Greater Manchester and national level data will also be included within the baseline assessment to provide additional context and to help determine the sensitivity of baseline conditions in other geographies.

Baseline Surveys and Impact Assessment

6.208 Baseline data have been derived from a range of publicly available secondary datasets, including (but not limited to) the 2021 Census of Population, Business Register and Employment Survey, Department for Education School Census, and NHS General Practice workforce data. The most recent available data for the study area will be obtained, wherever possible.

6.209 All committed developments identified are relevant to this Chapter; however, due to data availability and time lags in reporting updates, it is unlikely that publicly available baseline data will reflect all these committed developments.

6.210 The assessment of likely and residual socio-economic effects will be undertaken quantitatively wherever possible, utilising appropriate guidance where available.

6.211 An estimation of the jobs generated during the construction phase will be made using data on construction spend estimates and turnover per FTEs in the construction industry to derive estimates of the likely number of temporary construction workers per annum during the construction phase.

6.212 An estimation of the new residential site population will be made based on the proposed mix of units and the estimated population yield from each unit type. This will also be compared

with the pupil yields for different sizes and types of properties based on data from the Department for Education (DfE) for Manchester⁵⁰ or other local sources, where available.

- 6.213 The impact on employment and the local economy will be based on an assessment of the number of new jobs supported on-site and off-site as well as GVA and household spending. The number of new jobs will be estimated by applying standard Homes and Community Agency (HCA) employment densities to the amount of commercial floorspace provided on-site⁵¹. The resulting GVA will be estimated based on GVA per FTE drawing on data from the ONS Business Register and Employment Survey, whilst household spending will be estimated based on data from the ONS Family Expenditure Survey.
- 6.214 An assessment of the likely effects of the Proposed Development's additional population on the capacity of existing early years provision and local primary and secondary schools, as well as the capacity of primary healthcare facilities, open space provision and children's play space will be made. Where relevant, established standards for provision set out within local and sub-regional policy will be referred to.
- 6.215 A cumulative assessment will be undertaken for the schemes identified and will be based on the same methodology of impact assessment as outlined above.
- 6.216 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

Solar Glare (GIA)

Consultation & Available Information, & Baseline Conditions

Consultation

- 6.217 There are no specialists within Manchester City Council or other statutory consultees relevant to the area of solar glare. As such, no consultation will be undertaken prior to submission of the application.

Completed Background Studies

- 6.218 No background studies have been undertaken for solar glare.

Baseline Conditions

- 6.219 The solar glare assessment is undertaken on the worst-case scenario. Solar Glare is not a comparative assessment; the fact it may occur in the baseline does not necessarily justify its occurrence as a result of the Proposed Development. Therefore, the assessment considers the effect of the Proposed Development in absolute terms.
- 6.220 Should the Proposed Development not come forward, there would be no change in terms of solar glare from the Baseline conditions which comprises a two-storey brick commercial building, with predominantly punched windows within a solid facade.
- 6.221 Solar glare from surrounding buildings is not assessed.

⁵⁰ DfE, August 2023, Estimating Pupil Yield from Housing Development

⁵¹ Homes and Communities Agency (2015) Employment Densities Guide, 3rd Edition

Scope of Assessment

Identification of Effect/s which are Not Significant

Table 6.41: Effects which are Not significant

Effect	Solar Glare causing visual discomfort to occupiers of adjoining buildings	Applicable Development Phase (C / O)	O	Receptor	Occupants of adjoining buildings
Discussion of Effect					
BRE states that reflected sunlight can affect occupants of adjoining buildings. Solar reflections impacting adjacent buildings is considered to be discomfort glare and does not impair the ability to see. Whilst it can be important where work involves continuous viewing of the outdoor space from a fixed vantage point, it can generally be managed where glare is an issue by using blinds or curtains for the periods of time where such glare occurs. For these reasons, residential uses are classified as low-sensitivity receptors and do not require assessment as no significant adverse effects could occur. Therefore, as no significant effects would occur in terms of solar glare impacting adjoining buildings, solar glare effects to occupants of neighbouring buildings is scoped out.					
Mitigation Committed to in order to Avoid or Reduce Effect					
N/A					
Concluding Statement					
No significant effects would occur in terms of solar glare impacting adjoining buildings, therefore solar glare effects to occupants of neighbouring buildings is scoped out.					

Table 6.42: Effects which are Not significant

Effect	Solar Glare to road users and train drivers	Applicable Development Phase (C / O)	C	Receptor	Road users and train/tram drivers at sensitive locations surrounding the site
Discussion of Effect					
The worst-case scenario is portrayed by the complete and operational Proposed Development, where all reflective facade materials have been installed and any covers, films or hoarding used during the construction period have been removed. As construction works progress, and the facades of the Proposed Development are installed, the potential solar glare effects would be similar to those once the Proposed Development is complete and operational. It is therefore considered that the completed Proposed Development represents the worst-case assessment in terms of likely solar glare effects. The construction phase therefore be scoped out.					

Mitigation Committed to in order to Avoid or Reduce Effect
N/A
Concluding Statement
The completed Proposed Development represents the worst-case assessment in terms of likely solar glare effects, therefore the construction phase therefore be scoped out.

Identification of Effect/s which are Likely to be Significant

Table 6.43: Effects which are Likely significant

Effect	Receptor	Applicable Development Phase (C / O)
Solar Glare	Road Users	O
	Train Drivers	O

Assessment Methodology for Likely Significant Effects

- 6.222 As stated by BRE, “if it is likely that a building may cause solar dazzle the exact scale of the problem should be evaluated. This is done by identifying key locations such as road junctions and railway signals, and working out the number of hours of the year that sunlight can be reflected to these points”. Therefore, the assessment of solar glare identifies the time of the day and year that solar reflections will be visible from the assessed viewpoints, as well as their relationship to a driver’s line of sight. The assessment does not however, measure the intensity of the reflection but merely the occurrence and duration.
- 6.223 Drivers at each of the relevant road junctions are considered the sensitive receptors, where there are multiple directions of travel potentially affected, each direction of travel at the junction is considered a separate receptor as their effect significance may differ. For train tracks, the train drivers on the stretch of track are considered to be the sensitive receptor. The effect significance will be determined using professional judgement taking into consideration the duration of solar reflections, location of these in relation to a driver’s line of sight, type of junction control and the probability of reflections occurring. The effect significance is given on a per junction basis considering all viewpoints assessed for that junction as well as any viewpoints that would not be affected by the Proposed Development.
- 6.224 There are no quantitative criteria within the BRE Guidelines or elsewhere regarding acceptable levels of solar glare. When assessing the overall significance of effect, the following factors could influence the nature, scale and resultant significance of effect:
- Sunlight availability probability;
 - Area of façade off which reflections are visible;
 - Period of time when reflections are visible;
 - Angle at which reflections are visible from line of sight;

- Views of the Proposed Development being obscured for example by trees; and/or
 - The time of day at which the solar reflection will occur for example during peak traffic times.
- 6.225 The assessment methodology used for solar glare is set out below.
- 6.226 All viewpoints assessed for solar glare are considered to be of high sensitivity.
- 6.227 To determine impact magnitude, the factors listed below will be used to ascertain the scale of effect for each view and the factors listed above will then be taken into consideration to determine the overall significance for the sensitive location.
- Negligible: No reflections are visible or if visible all occur at angles greater than 30° from the driver's line of sight and so, as stated by the CIE, will be of "little significance".
 - Minor: Solar reflections are visible within 30° to 10° or between 10° to 5° of the driver's line of sight for a short period of time.
 - Moderate: Solar reflections are visible within 10° and 5° of the driver's line of sight occurring for a long period of time.
 - Major: Solar reflections are visible within 5° of a driver's line of sight.
- 6.228 For solar glare assessment, effects classified as Moderate or Major in magnitude of impact are considered to be 'significant'. Effects classified as Minor or Negligible in magnitude of impact are considered to be 'not significant'.
- 6.229 The solar glare assessment is undertaken on the worst-case scenario. Solar Glare is not a comparative assessment; the fact it may occur in the baseline (Scenario 1) does not necessarily justify its occurrence as a result of the Proposed Development (Scenario 5). Therefore, the assessment considers the effect of the Proposed Development in absolute terms as portrayed by Scenario 5, Baseline + Phase A + Phase B + Phase C.
- 6.230 Based on a common practice approach to portray the worst-case scenario, the cumulative effect (Scenarios 5a) will not be considered as neighbouring Committed Developments can block sunlight reaching the facades of the Proposed Development and/or obscure the Proposed Development from the viewpoints to be assessed.
- 6.231 Similarly, as the Proposed Development is a phased application, there is the potential that changes in the intended construction programme may occur. Due to the location of the buildings in relation to the sensitive viewpoints, based on professional judgement, the residual effects are not expected to differ from those of the fully implemented Proposed Development, Scenario 5. Therefore, it is unlikely that phased solar reflections would be generated in isolation that do not occur in the complete and operational Proposed Development scenario, and the phased solar glare effects (Scenarios 2, 3 and 4) will not be assessed. This will be kept under review as the assessment progresses, should there be the potential for temporary phased effects to occur in any of the phased scenarios, additional scenarios will be assessed accordingly.
- 6.232 Where committed developments are visible within the field of view of drivers at any sensitive locations assessed (Scenario 5), they are included within the surrounding context as their completed form due to their construction having commenced.

TVIA (Re-Form)s

Consultation & Available Information, & Baseline Conditions

Consultation

Manchester City Council was consulted via email correspondence on 13 August 2025 to agree the scope of the views for Heritage and Townscape. This resulted in an additional view being added from area of Dantzic Street/Dalton Street to capture view from emerging Collyhurst community area. This view has subsequently been scoped in. Further consultation may form part of future pre-application discussions.

Completed Background Studies

Table 6.44: Completed Background Studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Zone of Theoretical Visibility ('ZTV') Study	Produced by Re-Form.	March 2024
Identification of key views	Identification of key views from local and wider townscape area of the Site utilising ZTV and understanding of heritage and townscape sensitivities.	March 2024
Review and national and local character area studies	Identify the national character area for the site.	April 2024
Local character area study	Identification of local characters areas within the city centre boundary close to the site.	April 2024
Review of local urban grain, existing building heights, movement typologies and nearby SRF's.	Identification of existing local urban grain and building heights along with movement typologies through desktop study and site analysis.	April 2024
Review of local topography	Identification of any significant topography close to the site that will inform the assessment.	April 2024

Baseline Conditions

Baseline Appraisal Methodology – Townscape & Visual

- 6.233 Given the fine grain and established street pattern of the surrounding urban townscape, and taking into account the scale of the Proposed Development, a 500m study area is considered appropriate for analysing potential effects on townscape receptors.

- 6.234 The townscape baseline assessment will define a series of townscape character areas. These will be geographical areas that share distinctive, readily recognisable characteristics. Each character area will be described in terms of:
- **Quality** – relating to built form, architectural detailing, materials, and condition/maintenance;
 - **Value** – informed by statutory and non-statutory designations;
 - **Sensitivity** – reflecting the extent to which an area is able to accommodate change without adverse effects on its character.
- 6.235 This process will be informed by detailed site survey work and relevant supplementary planning documents, including local character appraisals.
- 6.236 The baseline visual assessment will identify where the Site is visible and establish which views may be affected by the Proposed Development. Visual receptors, groups of people likely to experience such views, will be identified and categorised, including residents, users of public open space, transport corridors, and visitors to publicly accessible heritage assets. The existing visual amenity of these views will be appraised to provide a clear baseline against which change can be assessed.
- 6.237 A set of 14 proposed representative viewpoint locations has been identified to test potential townscape and visual effects, and to help understand impacts on heritage receptors. Viewpoint selection has been informed by the Zone of Theoretical Visibility (ZTV) and a wider appreciation of local sensitivities. The proposed viewpoint locations are illustrated at Figure 3 in Appendix 6 and are submitted for comment and agreement with Manchester City Council (MCC).
- 6.238 The baseline assessment will therefore determine the relative sensitivity of townscape and visual receptors to changes arising from the Proposed Development, providing the foundation for the subsequent effects assessment.

Scope of Assessment

Identification of Effect/s which are Not Significant

- 6.239 At this stage of the design process, all townscape and visual receptors are retained within the scope of assessment to allow for the identification of potentially Significant effects arising from the Proposed Development. Once final design information and verified visualisations are available, a further scoping exercise will be undertaken as part of the EIA. This subsequent review will seek to scope out any effects that, upon detailed appraisal, are confirmed to be non-Significant. At present, a number of potentially Significant effects have been identified; however, these remain provisional and will be subject to confirmation once the detailed design information and full assessment of effects are complete.

Identification of Effect/s which are Likely to be Significant

- 6.240 At this stage of the design process, with townscape character areas still being defined and viewpoints at an early stage of preparation, all townscape and visual receptors are retained within the scope of assessment to allow for the identification of potentially Significant effects arising from the Proposed Development. Once final design information and verified views are available, a further scoping exercise will be undertaken as part of the EIA to refine the assessment and scope out any effects determined to be non-Significant.

Table 6.45: Effects which are Likely Significant

Effect	Receptor	Applicable Development Phase (C / O)
Potentially Significant (beneficial or adverse effect) on character, appearance and function of townscape character areas in the study area	Townscape Character Areas	C and O
Potentially Significant (beneficial or adverse effect) on visual receptors	Visual Receptors (i.e. people experiencing views)	C and O

Townscape and Visual Impact Assessment

Assessment Methodology

- 6.241 The assessment of effects on townscape and visual receptors is closely related but undertaken as two distinct strands of analysis:
- **Townscape** effects relate specifically to the townscape as a resource, focusing on its overall character and quality.
 - **Visual** effects relate to specific views and the resulting impact on the visual amenity experienced by people.
- 6.242 The methodology will be informed by the principles set out in the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3, Landscape Institute and Institute of Environmental Management and Assessment, 2013).

Viewpoints and Visualisations

- 6.243 For each of the agreed representative viewpoints, the assessment will include images showing:
- Scenario 1 and 1a: The baseline and alternative baseline condition.
 - Scenario 5: The Proposed Development.
 - Scenario 5a: The Proposed Development in combination with surrounding cumulative schemes.
- 6.244 These will take the form of Accurate Visual Representations (AVRs, also known as Verified Views), created by a specialist visualisation company through accurate integration of a three-dimensional model of the Proposed Development with baseline photography.

Assessment of Effects

- 6.245 For each receptor, sensitivity and magnitude of change will be combined to identify the level and type of effect. The assessment will distinguish between construction and operational phases and will conclude whether identified effects are Significant or not. While based on professional judgement, tabulated criteria for sensitivity, magnitude, and significance will be

used to ensure transparency and consistency. The same terminology applied to built heritage receptors will be used in assessing townscape and visual receptors.

Cumulative Effects

- 6.246 An overall cumulative assessment will also be provided, addressing townscape, views, and built heritage. This will consider the additional effects of the Proposed Development in the context of other proposed and consented schemes, focusing on the cumulative baseline. Relevant surrounding developments will be included in the agreed verified views to illustrate these effects.

Limitations and Assumptions

- Field survey of heritage assets within the study area has been limited to publicly accessible areas and therefore to ground-level viewpoints.
- The assessment does not include consideration of below-ground archaeology.

Wind (GIA)

Consultation & Available Information, & Baseline Conditions

Consultation

- 6.247 No consultation will be undertaken in relation to wind microclimate.

Completed Background Studies

Table 6.46: Completed Background studies

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Initial CFD Wind microclimate Assessment	The CFD wind assessment analysed the wind comfort and safety of the proposed development within existing surrounds, using the LDDC variant of the Lawson comfort criteria. No landscaping was included to ensure worst case results. The results were suitable for comfort and safety except a few minor areas that would be mitigated for the planning assessment. Therefore it not anticipated there would be any significant effects.	December 2023

Baseline Conditions

- 6.248 Winds for the Manchester area are predominantly from the south, with a secondary peak from the north-west west during spring and summer. Winds are typically stronger in the winter

season, and lighter throughout the summer. Wind roses per season for the Manchester area have been created from data attained from Manchester airports over a period of 30 years. These wind roses provide the frequency of occurrence and magnitude of winds from all directions within the 30-year period.

- 6.249 To understand and quantify the baseline conditions at the Site, a full-scale digital model will be constructed reflecting the existing built form of the Site and the surrounding area (400m radius from the centre of the Site, in accordance with industry best practice). This full-scale digital model will be tested in high resolution Computational Fluid Dynamics (CFD) to allow the baseline wind microclimate conditions to be quantified.
- 6.250 The baseline results from CFD will be combined with long-term meteorological climate data for the Manchester area, corrected to understand the baseline conditions specific to the Site, having regard to its location within Manchester. Testing in CFD will be conducted in the absence of any existing hard or soft landscaping, in order to provide a conservative result.

Scope of Assessment

Identification of Effect/s which are Not Significant

- 6.251 There are no non-significant effects anticipated for the wind microclimate assessment.

Identification of Effect/s which are Likely to be Significant

Table 6.47: Effects which are likely to be significant

Effect	Receptor	Applicable Development Phase (C / O)
Wind safety risk due to strong winds	All locations which are accessible to pedestrians or cyclists either on site or in the immediate surrounding area	C & O
Changes to suitability of pedestrian wind comfort levels	Existing thoroughfares and roadways	C & O
Changes to suitability of pedestrian wind comfort levels	Existing transit stops	C & O
Changes to suitability of pedestrian wind comfort levels	Existing off-site entrances	C & O
Suitability of pedestrian wind comfort levels	Entrances to the Proposed Development	O
Suitability of pedestrian wind comfort levels	External Amenity Spaces (ground floor spill out seating or public realm, roof terraces, balconies) which are introduced by the Proposed Development.	O

- 6.252 The assessment of the wind microclimate will be based on the results from a series of tests on full-scale digital models using CFD to provide a detailed assessment. The wind microclimate will be benchmarked against the Lawson Comfort Criteria, in order to assess the pedestrian comfort for users of the Proposed Development.

- 6.253 During design development, CFD testing of the developing massing will be carried out for selected wind angles of concern to examine the anticipated flows and to assist in refining the design.
- 6.254 Given the Proposed Development contains tall buildings, in addition to the site's location in relation to surrounding buildings, it is important to avoid undesirable wind speeds being generated at ground and accessible elevated levels.
- 6.255 The wind microclimate assessment will therefore quantify the potential changes to the local wind environment (both on-site and within the surrounding area) in terms of pedestrian amenity and public open space and quantify these in relation to their 'usability' for a range of pedestrian and amenity activities (i.e., thoroughfares, entrances, sitting, etc), as defined by the well-known and established Lawson Comfort Criteria.
- 6.256 The scope of the wind microclimate assessment will include:
- A summary of all relevant national, regional, and local policy guidance on wind microclimate. Any specific local policies (e.g., Supplementary Planning Guidance (SPG)) that may be applicable to wind microclimate will also be included;
 - CFD testing of the baseline conditions in and around the site as well as CFD testing of the Proposed Development in the context of both the existing and cumulative surrounds;
 - Assessment of the measured wind conditions against the Lawson Comfort and Safety Criteria; and
 - Where required, development and testing of measures to mitigate against strong winds and to achieve desired wind conditions.

Assessment Methodology for Likely Significant Effects

Baseline Data

- 6.257 3D models of the Proposed Development, existing surroundings and nearby cumulative schemes, as appropriate, will be created and tested in high resolution CFD, to allow the future wind microclimate conditions to be quantified.
- 6.258 The model will cover a radius of 400m. Mean wind speeds and turbulence levels will be measured at 1.5m above ground level and any raised areas which are accessible to pedestrians.

Method of Assessment

- 6.259 Based on the results of the CFD testing assessed against the Lawson Comfort Thresholds, shown in Appendix 4, the suitability of the conditions and the likely effect at particular locations, both within and off-site, will be determined. If the measured wind conditions exceed the threshold wind speed for more than 5% of the time (whether that is seasonally or annually), then they are unacceptable for the stated pedestrian activity and the expectation is that there may be complaints of nuisance or people will not use the area for its intended purpose.
- 6.260 Strong winds are reported for exceedances of 15m/s (to account for less able-bodied people or vulnerable users such as cyclists) and 20 m/s (for able bodied people) for more an 0.025% of the year (or above approximately 2 hours).

- 6.261 The suitability of the conditions both within and surrounding the site, both in terms of comfort and strong winds, will be presented and discussed within the report, and a supporting technical appendix.
- 6.262 Should mitigation measures be required to provide wind conditions within a particular area / space to be suitable for their intended use, or are required to mitigate against predicted strong winds, the areas identified requiring suitable mitigation measures will be developed in consultation with the Applicant and the Design Team. Where necessary, mitigation measures will be tested through additional rounds of CFD studies. Following mitigation, the scale of any residual effects will be identified.

Standard Methodology

- 6.263 The assessment methodology is to differ from that laid out in section 2 of the scoping report. Please refer to tables in the appendix of this document ((i) Standard Methodologies for Determining Impact Magnitude and Receptor Sensitivity, (ii) Standard Impact Significance Matrix), which outline the intended approach.

Scenarios Tested

- 6.264 The below Scenarios represent worst case and will be tested.
- Scenario 1: Existing Baseline (existing EIA Site, as of September 2025)
 - Scenario 5: Baseline + Phase A + Phase B + Phase C
 - Scenario 5a: Baseline + Phase A + Phase B + Phase C + Cumulative

Limitations and Assumptions

- The accuracy of the results is dependent upon the accuracy of the architectural CAD used to construct the model.
- There is an inherent assumption that on-site wind speeds will scale linearly with the measured wind speeds at the airport (Manchester International).
- It is assumed that, during the construction process, wind conditions will gradually change from the Baseline Conditions to the conditions for the Completed Proposed Development.
- It is assumed that on-site activity during construction will be able to withstand a higher category of pedestrian comfort level than for the Completed Proposed Development.

Appendices

Appendix 1 - Site Location Plan



Notes:

- Application 1 Boundary
- Application 2 Boundary

Project: Red Bank		Title: Existing Site Location Plan EIA Site Boundary		Scale: 1:1250 @ A3	
Drawn: FM	Checked: MH	Status: Information	Drawing No: 198-JMA-MP-00-DR-A-001000		
Rev: -	Date: 05.09.25	Details: Planning			

Jon Matthews Architects
Union, 2-10 Albert Square, Manchester, M2 6LW 0161 974 3690

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Appendix 2 - Committed Developments

Map No.	Name	LPA Planning Ref.	Description of Development	Distance from Site (approx.)	Status
Baseline (Under Construction)					
1	Victoria Riverside	126944/FO/2020 Approved January 2021	Erection of a residential-led mixed use development comprising 3 no. towers (37, 26 and 18 storeys) and podium levels (6 storey) to form 634 residential apartments and townhouse accommodation (Use Class C3) together with commercial accommodation (1222 sqm) (Use Classes A1,A2,A3,A4,A5,B1, D1 and D2)); with associated residential amenity areas, refuse storage, plant (including substation), car parking, cycle storage, landscaping and new public realm including the re-instatement of Bromley Street and other associated works	170m	BASELINE Under Construction. Anticipated Completion – Q3 2025
2	Victoria North (87 Rochdale Road)	131708/FO/2021 Approved February 2022	Erection of a part 11, part 13 storey building to form residential apartments (Use Class C3a) together with the erection of two blocks of 3 storey duplexes (Use Class C3a) to form 237 residential homes in total with associated commercial floor (Use Class E) (132 sqm), basement car parking, landscaping and public realm, and associated engineering and infrastructure works following demolition of existing buildings and structures	460m	BASELINE Under Construction. Anticipated Completion – Q1 2026

3	2 & 3 Angel Square	134307/FO/2022 Approved October 2022	Erection of 2 Angel Square, a 14 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units at Upper Ground floor Level (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), and with a flexible office (Use Class Egi) and/or restaurant (Use Class Eb) space at Level 12, along with Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works; Erection of 3 Angel Square, a 13 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units provided over Lower and Upper Ground Floor Levels (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), a further flexible commercial unit at Upper Ground Floor Level only allowing for ancillary seminar space and / or Sui Generis Use Class (t) Cinema space, together with an ancillary gym space at Upper Ground Floor, as well as Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works.	450m	BASELINE 2 and 3 Angel Square. Under construction.
4	Waterhouse Gardens	118831/FO/2018 Approved February 2019	Erection of two buildings (a part 17, part 12 storey building and a part 26, part 23 storey building) to form 556 residential units (Use Class C3a) together with the creation of 3490 sqm of commercial floor space (Use Classes A1, A2, A3, B1 and D1) with associated landscaping, access and other associated works	520m	BASELINE Under construction. Partial completion anticipated by Q3 2025
5	Dulwich Street (New Town Plots NT02-04)	136814/FO/2023 Approved December 2023	Erection of a phased residential led mixed use development comprising three residential towers (Use Class C3a) (NT02 34 storeys, NT03 part 8, part 20 and part 31 storeys and NT04 part 8, part 27 storeys) with	310m	BASELINE Under Construction (Groundworks)

			associated flexible non-residential floorspace comprising commercial, business, service and community uses (Use Classes E, F and Sui Generis); erection of a 6 storey residential amenity space within a clubhouse building (part of NT02), with associated car and cycle parking, hard and soft landscaping, improvement works to Dantzic Street, drainage infrastructure and associated engineering works following demolition of existing buildings and structures		
6	Premier Inn Rochdale Road	127537/FO/2020 Approved Feb 2019	Erection of a 11 storey 229 bedroom hotel (Use Class C1) with ancillary ground floor bar/restaurant together associated public realm and other associated works	500m	BASELINE Under Construction
7	Red Bank HIF (creation of development platforms and green infrastructure works)	133143/VO/2022 Approved 14 Jul 2022 137079/JO/2023 Approved 4 August 2023	City Council Development for the creation of development platforms, including remediation and earthworks, and change in site levels, to allow delivery of future residential-led development at the Red Bank Neighbourhood, together with the construction of a new road and priority junction from Red Bank, new drainage infrastructure, utility and services connections and diversions, preparatory tree and shrub clearance, and demolition of certain existing structures, along with the creation of new and improved green infrastructure and landscaping including the improvements of St Catherine's Wood to form part of a City River Park, and other associated works	10m	BASELINE Under Construction
8	Old Bank Building Extension	127464/FO/2020 Approved October 2020 137752/NMC/2023	Construction of a new 7-storey office extension to the rear of the Old Bank Building to form a mixed use development comprising office use (Use Class B1) and ground floor commercial units (Use Classes A1, A2, A3, A4 and D2); change of use at ground floor of the existing building from B1 office use to (Use Classes A1, A2, A3, A4 and D2), together with cycle storage, showers and bin storage; and external works relating to	550m	BASELINE Non-Material Amendment Application approved and implemented in October 2023.

		Approved 13 October 2023	the reuse, refurbishment and extension of the building, including external alterations to create a new doorway on Hanover Street; alongside new internal substation and installation of external plant and screen at roof level and associated works (associated listed building application reference 127465/LO/2020).		
9	No.1 Lord Street	113914/FO/2016 Approved November 2016 124193/JO/2019 Approved August 2019	Erection of a 16 storey building to form 192 residential apartments (Use Class C3a) together with ground floor commercial unit (172 sqm) (Use Class A1, A2, A3 or B1) with associated vehicular access from Fernie Street, car parking and hard and soft landscaping following demolition of existing buildings	230m	CUMULATIVE Section 73 application approved in August 2019. Pre-commencement conditions discharged.
Cumulative					
10	Redbank	136812/OO/2023 Resolution to approve by committee on 31 August 2023	Outline application for development comprising: Erection of a residential led mixed use development across severable plots comprising residential (Use Class C3a); non-residential floorspace comprising commercial, business, service and community uses (Use Classes E, F and Sui Generis); residents amenity space including within clubhouse buildings; health centre (Use Class E); a primary school (Use Class F); the final surface finish of the highway and footpath consented under HIF permission ref: 133143/VO/2022; creation of new public realm and associated landscaping, car parking provision, cycle storage, and other associated works (with all matters reserved). Outline application for development with all matters considered: Demolition of existing buildings and structures.	0m	CUMULATIVE Resolution to approve achieved at Planning Committee subject to signing S106.

11	4 and 5 Angel Meadow (Meadowside)	124120/JO/2019 (original permission 116366/FO/2017) Approved December 2019	Variation of planning condition 3 (specified plans) of planning permission 116366/FO/2017 to increase the height of buildings at plots 2 and 3 by 1.1 m, amendments to the facade treatment of plots 2 and 3, increase in the height of plot 4 by 0.278m, amendments to the facade treatment of building at plot 4, increase in height of plot 5 by 1m together with elevational alterations, alteration to podium to plot 4 Erection of four residential buildings (22 storey building, 17 storey building, 40 storey building and part 12, part 9 storey building) to form 756 residential apartments (Use Class C3a) together with ground floor commercial uses (616 sqm) (Use Classes A1, A2, A3, A4, A5, D1 and B1) with associated car parking, landscaping, amenity areas, creation of new public realm following the closure of Aspin Lane, Mincing Street and Irk Street and other associated works following demolition of existing structures	250m	CUMULATIVE Planning Permission implemented for Mount Yard, The Gate and The Stile completed. The Peak (c. 40 storeys) not yet implemented.
12	The Gasworks	128248/FO/2020 Approved December 2023	Erection of 9 buildings ranging from 8 to 34 storeys in height to form 1202 residential apartments (Use Class C3a) and ground floor commercial uses (Use Class E) (192 sqm) together with associated car parking, new vehicular and pedestrian access, public realm, landscaping and other associated works following demolition of existing structures and buildings	305m	CUMULATIVE Planning Permission not yet implemented.
13	New Victoria Office Building	137792/FO/2023 Approved Oct 2023 141059/NMC/2024	Erection of a 12 storey building (inc. (Ground + Mezzanine) + 11 storeys, basement and roof terrace and plant), comprising office accommodation, a ground floor retail unit, roof terraces, plant, cycle parking, hard and soft landscaping, access and servicing and other associated works.	545m	CUMULATIVE Non Material Amendment application approved in January 2025

		Approved January 2025			
14	One Park Place	138302/FO/2023 Approved January 2024	Erection of a part 25 and part 15 storey residential building comprising 154 apartments (Use Class C3a) with ground floor commercial uses (Use Class E), together with associated residents amenity space, cycle parking, substation, servicing, and associated landscaping works following demolition of existing buildings	320m	CUMULATIVE Planning Permission not yet implemented.
15	Brewery Gardens	137941/FO/2023 Approved	Erection of two buildings part 29, 25 and 20 storeys and 12 storeys to create a mixed-use development comprising 505 residential apartments (Use Class C3a) with commercial uses (Use Class E) provided at the ground floor level, together with public realm including courtyard pocket, cycle parking, accessible parking spaces, access arrangements, and other associated works.	555m	CUMULATIVE Planning Permission not yet implemented.
16	Cynergy Wellness	142300/FO/2025	Erection of a 23 storey residential building comprising 133 homes (Use Class C3a) with ground floor commercial unit (Use Class E) and associated works following partial demolition of rear of existing building.	500m	CUMULATIVE Application submitted 3 March 2025. It is currently awaiting determination
17	Carnarvon Street	138696/FO/2023	Erection of a part 17 / part 23-storey residential development comprising 237 apartments (Use Class C3a) and ground floor commercial uses (Use Class E) together with landscaping, cycle parking and other	320m	CUMULATIVE Resolution to approve received at Planning

			associated works following demolition of existing buildings		Committee on 21 November 2024.
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Appendix 3(a) – Limitations and Assumptions

Discipline	Limitations and Assumptions
Townscape and Visual Impact	- Field survey of heritage assets within the study area has been limited to publicly accessible areas and therefore to ground-level viewpoints. - The assessment does not include consideration of below-ground archaeology. - Assessment of below ground archaeology does not form part of this assessment.
Wind	- The accuracy of the results is dependent upon the accuracy of the architectural CAD used to construct the model. - There is an inherent assumption that on-site wind speeds will scale linearly with the measured wind speeds at the airport (Manchester International). - It is assumed that, during the construction process, wind conditions will gradually change from the Baseline Conditions to the conditions for the Completed Proposed Development. - It is assumed that on-site activity during construction will be able to withstand a higher category of pedestrian comfort level than for the Completed Proposed Development.
Daylight, Sunlight and Overshadowing	- Best estimates were made in determining building uses (residential or commercial). Generally, these were made from external observations and recourse to the Valuation Office Agency's (VOA) council tax records. - Where publicly available, room layouts have been included within the modelling of the sensitive receptors. Reasonable assumptions as to the floor levels within these modelled rooms, which dictate the level of the working plane relevant for the NSL assessments, have been based on external observations
Solar Glare	Although great care will be taken to identify typical viewpoints, this does not guarantee that there will be no additional sensitive locations where reflected solar glare could present a particular risk. For practical reasons, the area of the assessment has been limited to the area surrounding the Proposed Scheme. This area extends to a

Discipline	Limitations and Assumptions
	distance of approximately 500m around the site in all directions. At greater distances, the likelihood of solar reflections causing significant glare is reduced as the time that buildings will reflect is reduced and the area of façade visible constitutes a reduced angle and so reduces the possibility of the whole sun disk being reflected. The assessment methodology for solar glare is not aimed at addressing the intensity of an instance of reflected solar glare, but rather its occurrence, duration throughout the year, and the location of this occurrence in respect of an individual's line of sight. This approach to solar glare assessment within EIA has been adopted using professional judgement and by reference to Commission Internationale L'Eclairage (CIE) guidance.
Socio-Economic	- There are no recognised criteria for the assessment of socio-economic impacts, and therefore GC Insight, drawing on their expertise, knowledge of overarching guidance and experience of working in the subject area, has taken a structured approach to quantifying and assessing the scale and nature of potential impacts relative to baseline conditions. In cases where impacts cannot be quantified, a qualitative judgement will be made, drawing on professional experience. - The most up to date data from official published sources will be used wherever possible; however, there are some limitations in the baseline data. Where this is the case, GC Insight will gather data most closely aligned to the chosen study/local impact area and clearly state what geography the data collected refers to.
Climate Change	<u>GHG Emissions</u> - The GHG emissions assessment will be undertaken using a proportionate, evidence-based approach in line with current best practice. Reasonable assumptions will be made based on available project design information, published benchmarks, and government data sources, with the aim of providing a robust and conservative estimate of the emissions associated with the Proposed Development. - The following limitations and assumptions will inform the assessment: Design Stage Inputs: The assessment will be based on detailed design-stage information available at the time of assessment. Where more detailed, project-specific information is available (e.g. floor areas, material quantities, energy systems), it will be used in preference to generic data or benchmarks.

Discipline	Limitations and Assumptions
	○ Energy Consumption Benchmarks: Operational energy use will be estimated using published benchmarks from the Chartered Institution of Building Services Engineers (CIBSE Energy Benchmarking Dashboard, 2021) for different building typologies. Where detailed modelling outputs or building-specific energy strategies are available, these may be used in place of benchmark figures. ○ Water Consumption Benchmarks: Operational water consumption will be estimated using published benchmarks from the Plumbing Engineering Services Design Guide (2002). While this guidance is dated, it provides a conservative and widely recognised basis for estimating typical water usage. If more recent or project-specific data becomes available, this will be used where appropriate. ○ Electricity Grid Decarbonisation: Projected carbon intensity values for grid electricity will be sourced from the UK Government’s Department for Energy Security and Net Zero (DESNZ) ‘Electricity Emissions Factors to 2100’. These projections reflect current net zero policy commitments. Although actual grid performance may vary, these assumptions ensure alignment with national targets. ○ Design Life Assumption: A 60-year design life will be assumed for the Proposed Development, in line with BS EN 15978:2011 and the RICS Whole Life Carbon Assessment for the Built Environment (2nd Edition, 2023). This provides a consistent timeframe for assessing operational and lifecycle emissions. ○ Construction Phasing: While the development will be delivered in three phases, the assessment will assume a worst-case scenario in which all phases are constructed and operational concurrently. This ensures that the potential maximum GHG impact is captured, regardless of actual build sequence. ○ Embodied Carbon Benchmarks: Embodied carbon emissions will be calculated using project-specific material information where available, or appropriate benchmarks from Cundall’s internal database of previous Whole Life Carbon Assessments. These benchmarks are aligned with BS EN 15978 and calculated using a BRE-approved carbon calculator tool. ○ End-of-Life Scenarios: Emissions associated with deconstruction, material transport, waste processing and disposal (Modules C1–C4) will be estimated using standard benchmarks and assumptions aligned with BS EN 15978, as well as product-specific EPDs where available.

Discipline	Limitations and Assumptions
	○ Emission Factors: All carbon emission factors will be sourced from the UK Government’s GHG Conversion Factors for Company Reporting or other nationally recognised sources, as applicable at the time of assessment. ○ Module D (Benefits Beyond the System Boundary): Any potential benefits from reuse, recycling or material recovery (Module D) will be acknowledged separately. Where available, values from EPDs or carbon tools will be used to provide contextual information. However, these benefits will not be included in the net emissions calculation, in line with IEMA guidance, as they rely on outcomes beyond the control of the Proposed Development. <u>Limitations and Assumptions – Climate Resilience</u> • The CCRA will be carried out using a structured methodology aligned with IEMA’s Climate Change Resilience and Adaptation Guidance (2020). Reasonable assumptions will be made based on available design information, recognised climate projection data, and current best practice in climate risk assessment. • The assessment will consider both the construction and operational phases of the Proposed Development and will use the UKCP18 climate projections and other publicly available datasets to evaluate future risk exposure. • Key assumptions and limitations are outlined below: ○ Design Life Assumption: A 60-year design life will be assumed for the Proposed Development. This is consistent with the temporal boundary used for the GHG emissions assessment and is based on BS EN 15978:2011 and the RICS Whole Life Carbon Assessment (2023). It ensures alignment with standard building lifespan assumptions used in environmental assessments. ○ Climate Scenario Selection: Future risk projections will be assessed using the UKCP18 high emissions scenario (RCP8.5) across three future time periods - 2030s, 2050s, and 2070s. These periods will inform the assessment of potential climate hazards over the full operational lifespan of the development. ○ Mitigation Measures: Where embedded design features exist that address climate risks (e.g. drainage systems, passive ventilation, overheating strategies), these will be included in the assessment as embedded

Discipline	Limitations and Assumptions
	mitigation. Additional, non-committed adaptation options may also be proposed where appropriate, but these will be treated as recommendations rather than guaranteed outcomes. ○ Uncertainty in Climate Projections: While robust scientific methods will be used, the precise trajectory of global emissions and their climatic effects remain uncertain. This includes uncertainties surrounding feedback loops, extreme weather trends, and ice sheet dynamics, which may influence long-term outcomes beyond the timescales of this project. ○ Residual Risk: It is acknowledged that, despite mitigation, some climate-related residual risks may remain due to extreme or unforeseen climate events. The aim of the CCRA is to support risk-informed decision-making, not to eliminate all risk entirely. ○ Phasing Considerations: Although the Proposed Development will be delivered in three phases (A, B and C), the assessment will consider the worst-case scenario of all phases being constructed and operational concurrently. This approach ensures that all components are assessed consistently in relation to long-term climate exposure.
Air Quality	● There are a number of limitations and uncertainties associated with the assessment and modelling of air quality and, where applicable, realistic worst-case scenarios will be assumed (based on professional judgement). ● All values which will be presented in the ES will be the best possible estimates using professional judgement. To minimise uncertainty a realistic worst-case approach will be taken. ● The detailed construction method/programme information is not available at the time of writing. Therefore, professional experience from similar developments may be used to formulate construction phasing scenarios for evaluation of impacts associated with the construction phase of the project.
Noise and Vibration	● There are a number of limitations and uncertainties associated with modelling of noise and, where applicable, realistic worst-case scenarios will be assumed (based on professional judgement):

Discipline	Limitations and Assumptions
	• All values which will be presented in the ES are the best possible estimates using relevant calculation methods from appropriate standards and modelling processes employing best professional judgement. To minimise uncertainty, a realistic worst-case approach has been taken; • Environmental noise conditions can vary and there is the possibility of changes in the environment of the site and surrounding area at differing times. To minimise this uncertainty extensive baseline surveys have been undertaken at the nearest noise-sensitive receptors over several days including both weekend and weekday periods. Noise sources which won't be present during the operational phase of the Development (e.g. noise from GRUB bar to be demolished at the site) have been omitted from the baseline survey analysis based on audio recording data. • The detailed construction method/programme and information may not be available at the time of the ES submission. Therefore, professional experience from similar developments will be used to formulate Construction Phasing scenarios and select typical noisy activities for the assessment of noise. This will enable noise predictions to be made, but by its nature, construction noise is somewhat variable, and it is not possible to predict/model the noise exactly on a more micro scale i.e. on an hourly basis.
Ground Conditions	• This screening and scoping has been carried out based on the Phase 1 Preliminary Risk only. No intrusive investigation, interpretive risk assessment or remediation strategy has been undertaken. As a conservative approach, the effects are considered to be potentially significant at this stage.
Built Heritage	• Survey of the identified heritage assets within the study area is from publicly accessible areas. As such the study is limited to assessment from ground level. • Assessment of below ground archaeology does not form part of this assessment.
Human Health	• The Health Chapter will consider the findings relevant to human health of each technical impact assessment scoped into the Environmental Statement and, as such, any key assumptions or limitations associated with each technical impact assessment are addressed within the individual chapters. The overall approach for collating, assessing, and reporting impacts on human health and wellbeing is considered to be appropriate and proportionate such that there are no limitations. The assessment will be desk-based and with professional judgment using published information.

Appendix 3(b) – Scenarios to be Tested

Scenario 1	Existing Baseline (existing Site);
Scenario 1a	Alternative Baseline (HIF)
Scenario 2	Baseline* + Phase A
Scenario 2a	Baseline* + Phase A + Cumulative
Scenario 3	Baseline* + Phase A + Phase B (in any order)
Scenario 3a	Baseline* + Phase A + Phase B (in any order) + Cumulative
Scenario 4	Baseline* + Phase B
Scenario 4a	Baseline* + Phase B + Cumulative
Scenario 5	Baseline* + Phase A + Phase B + Phase C (in any order)
Scenario 5a	Baseline* + Phase A + Phase B + Phase C (in any order) + Cumulative

Discipline/ Scenario	1	1a	2	2a	3	3a	4	4a	5	5a	Supporting Commentary
Townscape and Visual Impact	Y	Y	N	N	N	N	N	N	Y	Y	
Wind	Y	N	N	N	N	N	N	N	Y	Y	
Daylight, Sunlight and Overshadowing	Y	N	N	N	N	N	N	N	Y	Y	
Solar Glare	Y	N	N	N	N	N	N	N	Y	N	
Socio-Economic	Y	N	N	N	N	N	N	N	Y	Y	
Climate Change	Y	N	N	N	N	N	N	N	Y	N	
Air Quality	Y	N	N	N	N	N	N	N	Y	Y	
Noise and Vibration	Y	N	N	N	N	N	N	N	Y	Y	
Ground Conditions	Y	N	N	N	N	N	N	N	Y	Y	

Discipline/ Scenario	1	1a	2	2a	3	3a	4	4a	5	5a	Supporting Commentary
Built Heritage	Y	Y	N	N	N	N	N	N	Y	Y	
Human Health	Y	N	N	N	N	N	N	N	Y	Y	

Appendix 4 – Environmental Statement Structure

Each chapter sub-heading is explained in further detail below.

A reference list will also be provided as relevant with each ES chapter.

This is considered to be a robust approach and aligns with the EIA Regulations (2017).

Introduction

This Chapter will introduce the assessment discipline and the purpose for which it is being undertaken.

Legislative and Policy Context

This Chapter will include a summary of national, regional and local policy and guidance of relevance to the environmental discipline and assessment. Relevant legislation will be summarised where applicable.

In addition, preparation of each ES chapter will consider relevant local and regional, social and economic policies. This will include (but may not be limited to):

- Manchester City Council Core Strategy (2012) and 2024 addendum
- Draft Manchester Local Plan (2025)
- Northern Gateway Strategic Regeneration Framework (2019) (2023)
- Guide to Development in Manchester – Supplementary Planning Document and Planning Guidance (2007)
- Places for Everyone – Greater Manchester Combined Authority (2024)
- National Planning Policy Framework (2023)
- Assessment Methodology and Significance Criteria

This Chapter will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed.

It will also outline any difficulties encountered in compiling the required information.

Baseline Conditions

This will include a description of the environment as it is currently and as it is expected to change given the project were not to proceed (i.e. 'do-nothing' scenario). The method used to obtain this information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.

Identification and Evaluation of Likely Significant Effects

This Chapter will identify the likely significant effects on the environment resulting from the Proposed Development.

The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. The criteria to be used in carrying out this process are detailed below. It should be noted that these tables provide a standardised set of criteria, which may not be applicable to all technical disciplines considered within the EIA. Where relevant, individual consultants may use a variation of the criteria and this will be clearly explained within the methodology of each chapter.

The Proposed Development will likely be delivered in a single phase. If the building were to come forward in phases scenarios would be reconsidered and amended where appropriate.

As a rule, and to ensure consistency across disciplines, developments that are already under construction are considered to form part of the Existing Baseline and those subject to planning permissions or otherwise identified within the committed developments are considered as part of the cumulative analysis.

The proposed scenarios to be tested are detailed in full within Appendix 3

Prediction of Impact Magnitude

The methodology for determining the scale or magnitude of change caused by the impact is set out in Table 3.1. The below table represent a standard methodology which all disciplines shall follow unless stated otherwise.

Table 3.1: Standard Methodology for Assessing Magnitude of Change

Magnitude of Change	Criteria for assessing magnitude of change caused by an impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character/composition/attributes of the baseline condition will be similar to the pre-development circumstances/situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Prediction of Receptor Sensitivity

The sensitivity of a receptor is based on the relative importance of the receptor using the scale set out in Table 3.2. The below table represent a standard methodology which all disciplines shall follow unless stated otherwise.

Table 3.2: Standard Methodology for Determining Sensitivity

Sensitivity	Examples of receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Assessment of Effect Significance

Effect significance will be calculated using the matrix in Table 3.3. This illustrates the interaction between impact magnitude and receptor sensitivity. The duration of the affect will also be considered and whether it is permanent or temporary.

Table 3.3: Effect Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major	Major - Moderate	Moderate - Minor
	Adverse/Beneficial	Adverse/Beneficial	Adverse/Beneficial
Moderate	Major - Moderate	Moderate – Minor	Minor
	Adverse/Beneficial	Adverse/Beneficial	Adverse/Beneficial
Minor	Moderate – Minor	Minor	Minor - Negligible
	Adverse/Beneficial	Adverse/Beneficial	
Negligible	Negligible	Negligible	Negligible

Mitigation Measures

Adverse effects will be considered for mitigation and specific measures will be put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions as well as pollution control. The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions.

The approach to mitigation will follow best practice guidance, which suggests a hierarchical approach. The UNEP EIA Training Resource Manual (2002) advises that impacts should ideally be:

- Avoided; if not

- Minimised; and/or compensated.

Three ‘types’ of mitigation are characterised in IEMA’s Special Report – The State of Environmental Impact Assessment Practice in the UK (2011):

- EIA influence at design stage;
- Standard construction practices for minimising effects; and
- Follow-up actions for implementation post-consent.

Clear details of when and how the mitigation measures were carried out, or will be carried out, are to be given within the ES. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary.

The opportunity for enhancement measures will also be considered where appropriate.

Cumulative Effects

Two types of cumulative effect will be assessed:

- Type 1 Cumulative effects - are the interactions between effects of the construction and development works on a single receptor.
- Type 2 Cumulative effects - are those that arise from incremental changes caused by other past, present or reasonably foreseeable projects together with the development proposals and associated works.

An assessment of the cumulative effect of the Proposed Development and other committed developments within a defined radius of the Site, including those with recent Planning Permissions and reasonably foreseeable to come forward in the near future, will be undertaken as part of the EIA.

There is no agreed / standard threshold for how far the assessment should go. Therefore, a professional judgement has been taken regarding which schemes to highlight, taking into consideration the surrounding context of the Site, which may differ between disciplines.

Where schemes are under construction, they have been considered part of the baseline. If applications are approved, subject to a live application reasonably considered likely to be approved, or otherwise reasonably considered likely to come forward, these are included as a committed development to be considered as part of the cumulative analysis. The list of committed developments includes schemes where the construction phase has stalled.

The schedule of committed developments has been issued to the LPA to seek their agreement on 29/08/2024 and is currently awaiting a response.

Full details of the committed developments to be included as part of the cumulative effects assessment are set out at Appendix 2.

Residual Effects

The residual effects, i.e. the effects of the Proposed Development assuming implementation of proposed mitigation, will be determined. The residual effects represent the overall likely significant effect of the Proposed Development on the environment having taken account of practicable/available mitigation measures.

Appendix 5- Air Quality- Relevant Legislation, Policy and Guidance

Legislation/Policy/Guidance	Description
Legislation	
Environmental Improvement Plan, 2023 ¹⁰	The Environmental Improvement Plan (EIP23) highlights that air quality continues to be the biggest environmental risk to human health and a source of harm to the natural environment. The document makes provision about targets and plans with the focus of improving the environmental quality. This includes reducing emissions in the home, driving effective local action through local authorities, maintaining and improving regulatory framework for industrial emissions, supporting farmers to cut the impact of agriculture on air quality and reducing emissions from cars and other forms of transport. Ten environmental goals were set in the 25 Year Environmental Plan. The second goal is clean air and the EIP23 seeks to address this further through the following targets and commitments: ▪ In 2040 reduce population exposure of fine particulate matter (PM_{2.5}) by 35% compared to 2018 levels (with an interim target of a 22% reduction by January 2028). ▪ Work towards meeting compliance with a 40µg/m³ limit for nitrogen dioxide (NO₂). ▪ Maximum annual mean 10µg/m³ for PM_{2.5} (with an interim target of 12µg/m³ by January 2028). ▪ Legal emission reduction targets for five damaging pollutants by 2030 relative to 2005 levels: ○ Reduce emissions of nitrogen oxides by 73%. ○ Reduce emissions of sulphur dioxide by 88%. ○ Reduce emission of (PM_{2.5}) by 46%. ○ Reduce emissions of ammonia by 16%. ○ Reduce emissions of non-methane volatile organic compounds by 39%.

	Progress towards delivering the EIP23 will be monitored through Annual Progress Reports and the Outcome Indicator Framework. This framework contains 66 indicators, six which are relevant to clean air.
The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 ¹¹	The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 mandate two key goals for England by 2040 which are: ▪ An annual mean concentration of PM_{2.5} no higher than 10 µg/m³ at any monitoring station in England, and ▪ A 35% reduction in population exposure to PM_{2.5} compared to 2018 levels. These regulations are part of the Environment Act 2021 and aim to improve air quality by addressing fine particulate matter pollution.
The Air Quality Strategy for England (2023) ¹²	Defra's framework for local authorities to make best use of their powers and make air quality improvements for their communities. Defra published a Clean Air Strategy in August 2023, updating the 2019 document and setting out a framework to help local authorities support their communities and achieve long-term air quality objectives, including new, ambitious targets for fine particulate matter (PM_{2.5}). This Strategy provides a wide range of actions for UK Government to reduce pollutant emissions and improve air quality. The range of power available to local authorities includes taking actions on domestic burning, industrial emissions, transport and non-road mobile machinery, agriculture, indoor air quality, and communicating air quality information. The Clean Air Strategy sets out the case for action and demonstrates the government's determination to improve air quality. In some cases, the goals are even more ambitious than EU requirements to reduce people's exposure to toxic pollutants like nitrogen oxides, ammonia, particulate matter, non-methane volatile organic compounds and sulphur dioxide.
Environment Act, 2021 ¹³	The Act makes provision about targets, plans and policies with the focus of improving the natural environment. This includes air quality, as well as water, nature and biodiversity, regulation of chemicals, waste and resource efficiency and recall of products failing to meet environmental standards. The Act introduces a duty on government to bring forward at least two air quality targets by October 2022 for consultation. These are to be to reduce the annual average level of fine particulate matter (PM_{2.5}) and to set a long-term (minimum of 15 year) target for its reduction. The 2021 Act amends the Environment Act 1995 Part IV by seeking to strength local air quality a management (LAQM) through greater cooperation at local level and broadening the range of organisations that play a role in improving air quality. Responsibility for tackling air pollution is to be shared between designated local authorities, all tiers of local government and neighbouring authorities. The environment

	secretary will be required to review the Air Quality Strategy at least every five years and publish annual progress reports to parliament. The 2021 Act amends the Clean Air Act 1993 to give local authorities more power to reduce pollution in smoke control areas by replacing the criminal offence of emitting smoke from a chimney in a smoke control area with a civil penalty regime, seeking to enable simpler, quicker and more proportionate enforcement at local level. It also amends the Environmental Protection Act 1990 by extending the system of statutory nuisance to private dwellings in smoke control areas, which could result in abatement notice and issuing fines for criminal offence of breaches. The 2021 Act introduces new powers for the government to compel vehicle manufacturers to recall vehicles and non-road machinery that fails to meet legal binding standards.
Environment Protection Act 1990, amended by the Pollution Prevention and Control Act 1999 ¹⁴ and the Environment Act 2021 ⁹	Part III provides statutory nuisance provisions for nuisance dust. Nuisance complaints about dust would need to be investigated by the Local Authority. In practice, dust deposition is generally managed appropriately by suitable on-site practices and mitigation, avoiding the determination of statutory nuisance and/or prosecution or enforcement notices.
The Non-Road Mobile Machinery (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018 ¹⁵	Developers and contractors are required to meet compliance with the emission standards for Non-Road Mobile Machinery (NRMM). The Regulations exercise of the powers conferred by section 2(2) of, and paragraph 1A of Schedule 2 to, the European Communities Act 1972 in relation to the type, description, construction or equipment of vehicles.
UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations. Detailed Plan. Defra / Department of Transport (DfT) (2017) ¹⁶	This plan was produced in response to a UK Supreme Court Ruling and sets out how the UK will achieve compliance with EU Limit Values for nitrogen dioxide (NO ₂) in the shortest possible time. The plan outlined infrastructure initiatives and grants and the requirements for Local Authorities to produce local action plans, with the aim of reducing NO ₂ concentrations below the objective as soon as practically possible.
The Air Quality Standards (Amendment) Regulations 2016 ¹⁷	The 2016 amendment is an update of the now superseded 2010 UK Air Quality Standards, which transposed formalised EU Limit Values which were set out in directive 2008/50/EC to UK law. These Limit Values were set for a variety of pollutants for human-health and the environment.
EU Ambient Air Quality Directive 2008/50/EC ¹⁸	Establishes the requirements of Member States in terms of improvements required to air quality. Sets standards for a variety of pollutants for human-health and the environment.
National Policy	
Ministry of Housing, Communities & Local Government - National	The National Planning Policy (NPPF) first published March 2012 and last updated in February 2025, with the purpose of planning and achieving sustainable development. Paragraph 199 of the NPPF states that:

Planning Policy Framework (NPPF) (2025)¹⁹	<i>“Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan”.</i> In addition, paragraph 110 states that: <i>“The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.”</i> Paragraph 187 discusses how planning policies and decisions should contribute to and enhance the natural and local environment. Of relevance to air quality, NPPF notes that this can be achieved by: <i>“e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans”</i>
Planning Policy Guidance (updated 2019)²⁰	Planning Practice Guidance (PPG) documents have been published as part of the NPPF. PPG relating to air quality was last updated in November 2019. It provides guidance on the significance of air quality in determining the local impact of proposed developments and highlights the importance of local and neighbourhood plans with regard to air quality. A flowchart is provided to assist local authorities in determining how air quality considerations might fit into development management processes.
Regional and Local Policy and Guidance	
Greater Manchester’s Clean Air Plan²¹	Eight Greater Manchester authorities were identified by the Government as having roads which are expected to continue to exceed the maximum legal limits of NO₂ in 2021. They were directed by Government to undertake feasibility studies to identify measures for reducing NO₂ concentrations to compliant levels in the ‘shortest possible time’. These studies must produce a series of business cases for assessing and implementing the relevant measures to address the problem.

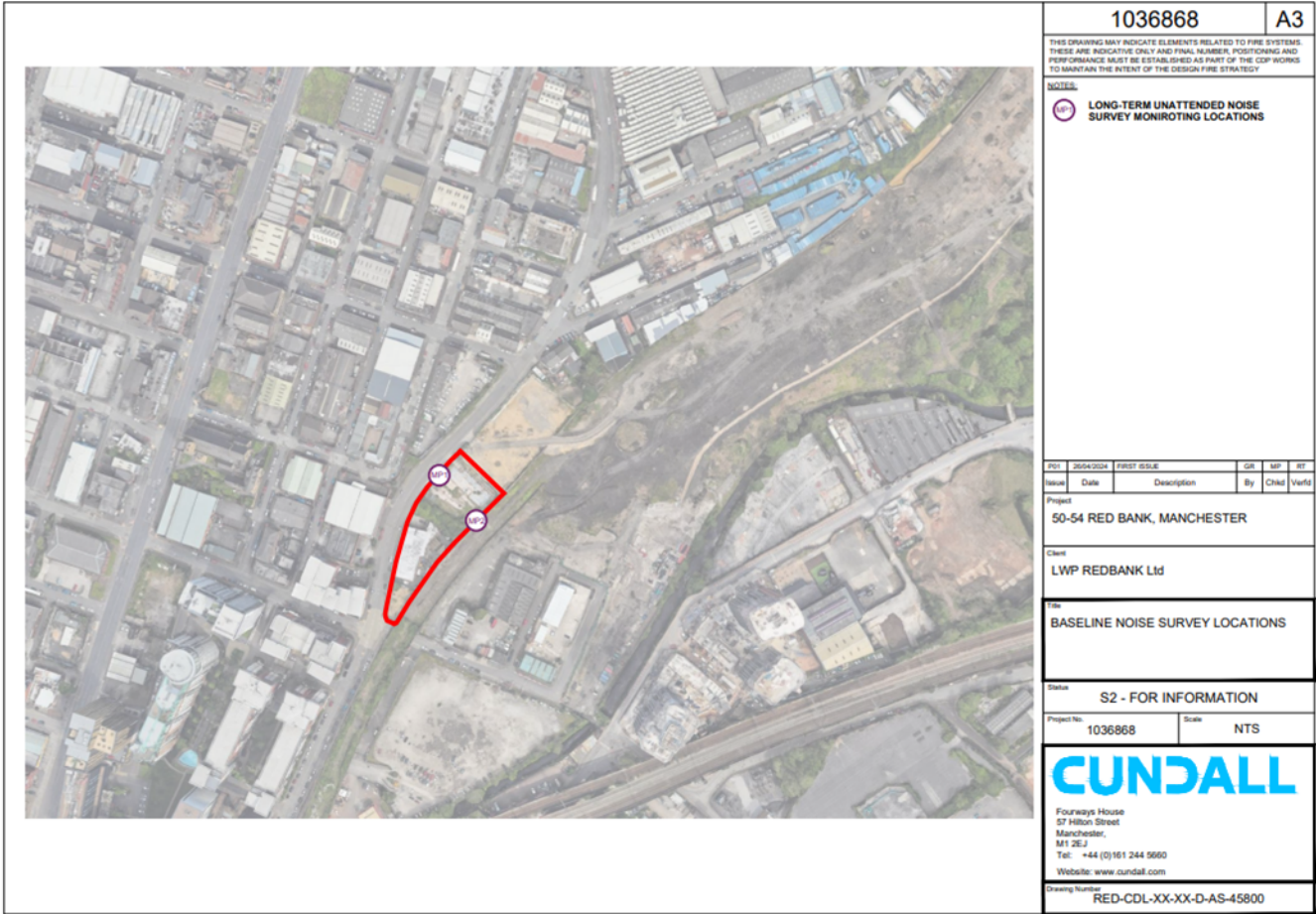
	The 10 Greater Manchester local authorities, Greater Manchester Combined Authority (GMCA) and Transport for Greater Manchester (TfGM) have worked together to develop a Clean Air Plan to tackle nitrogen dioxide (NO₂) exceedances at the roadside, known as GM CAP. Central Government agreed that the Greater Manchester charging Clean Air Zone would not go ahead on 30 May 2022. The original Greater Manchester CAP was designed to comply with a legal direction from government issued before the coronavirus pandemic. Since then, there have been significant changes in the market for vehicles compliant with Clean Air Zone standards, particularly vans, and the cost of living has increased. Greater Manchester local authorities have now submitted the case for a new investment-led Greater Manchester CAP, with no charging Clean Air Zone, to government. Government has approved the investment-led Greater Manchester Clean Air Plan with no Clean Air Zone and no charges to drive on local roads.
Greater Manchester Five-Year Environment Plan 2025-2030 ²²	The Five-Year Environment Plan (2025-2030) <i>“creates a framework for all decision makers to take the next actions required to progress towards our long-term environmental vision and ensure everyone in Greater Manchester has a healthy, low carbon, nature-rich environment in which to live-well, prosper and grow. Whilst national and local government have a role to play in enabling and encouraging action, it is the decisions that we all take as citizens, businesses, communities, investors, home and car owners that will determine whether we will achieve our shared goals.”</i> In particular, the plan highlights the need for concerted efforts to reduce PM_{2.5} concentrations further and to work towards the WHO guideline values by 2030. Objectives: ▪ Reduce emissions that contribute to poor air quality ▪ Support communities and business to encourage the adoption of behaviours that contribute to improving Air Quality Targets for 2030: ▪ 22% reduction in PM_{2.5} exposure by January 2028 compared to 2018 (measured using Defra’s Criteria). ▪ Zero exceedances of the NO₂ of the legal limit by 2026 (measured using CAP criteria). ▪ % of monitoring sites that meet WHO interim Target 2 (30 µg/m³), Target 3 (20 µg/m³) and the Guideline value (10 µg/m³) Annual Mean for NO₂.

Manchester City Council, Air Quality & Planning Technical Guidance (2022) ²³	This guidance was issued by Manchester City Council and provides help and advice in relation to air quality and planning. It outlines the required steps required to ensure any new development reduces air pollution as far as reasonable and practicable. The approach is based on guidance provided by Environmental Protection UK and the Institute of Air Quality Management. The guidance also reiterates the GMCA's commitment to achieving the WHO air quality guideline for PM _{2.5} of 10 µg/m ³ by 2030.
Places for Everyone Joint Development Plan 2022 to 2039 (adopted 2024) ²⁴	The Places for Everyone Plan took effect and became part of the statutory development plan for each of the nine PfE authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan) on March 21, 2024. This plan: ▪ Sets out how the nine boroughs should develop up until 2039; ▪ Identifies the amount of new development that will come forward across the 9 districts, in terms of housing, offices, and industry and warehousing, and the main areas in which this will be focused; ▪ Supports the delivery of key infrastructure, such as transport and utilities; ▪ Protects the important environmental assets across the city region; ▪ Allocates sites for employment and housing outside of the existing urban area; and ▪ Defines a new Green Belt boundary for Greater Manchester
Greater Manchester Air Quality Action Plan 2016-2021 (AQAP) ²⁵	The AQAP identifies a range of actions to reduce emissions and mitigate the impacts on air quality. Some Key actions regarding development and transportation are: ▪ Actions for managing new development: ▪ Construction Management Guidance – where a key priority area is affected by a proposed scheme, a high level of mitigation control will be requested. ▪ Development Planning Guidance - to ensure that potential local air quality effects are not overlooked and is not intended to introduce a burden on developers or local authorities to undertake unnecessary work. ▪ Cumulative Development Database - A centralised database of significant planning applications and air quality assessments will be managed by Transport for Greater Manchester (TfGM), as a record of the cumulative effects of multiple developments and thereby facilitate combined approaches to minimising emissions.

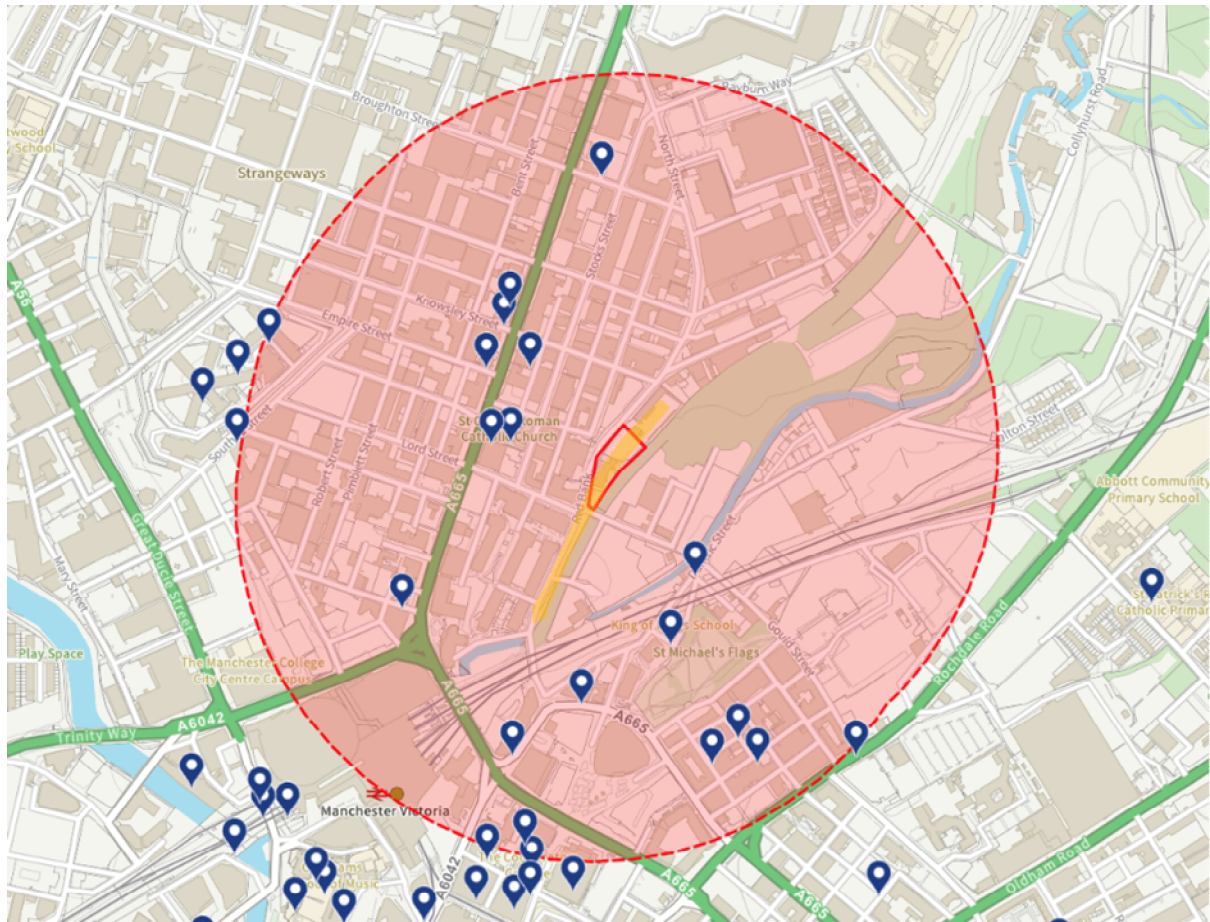
	▪ Clean Air Zone – TfGM will undertake an appraisal of the effects of charging Clean Air Zones (CAZ) ▪ 20mph Zones - The implementation of 20mph zones in urban areas has been cited as having the potential to benefit local air quality through smoother vehicle flow through junctions and reduced acceleration and braking, as well as having potential for additional benefits from encouraging modal shift from driving to walking or cycling. ▪ Encouraging Travel Planning - Individuals and companies are encouraged to look at travel planning measures, and to investigate the potential of additional demand management measures to affect a significant mode shift and to stimulate the uptake of low-emission vehicles. ▪ Taxi and Private Hire Quality Controls to Priorities Low-Emission Vehicles ▪ Green Infrastructure - The provision of green infrastructure in and around urban areas is now widely recognised as contributing towards creating places where people want to live and work.
Other Relevant Guidance	
IAQM Assessment of Dust from Demolition and Construction (2024) ²⁶	The document provides guidance for developers, their consultants and environmental health practitioners on how to undertake a construction impact assessment (including demolition and earthworks). The guidance provides a method for assigning a magnitude of risk (high, medium or low) and identifies appropriate mitigation measures.
Defra Local Air Quality Management (LAQM) Policy Guidance (2022) ²⁷ and Technical Guidance (2022) ²⁸	The guidance issued under Part IV of the Environment Act 1995 is designed to help local authorities with their LAQM duties. The guidance sets out the general approach to use and detailed technical guidance to guide local authorities through the Review and Assessment process.
World Health Organisation (WHO) Global Air Quality Guidelines (2021) ²⁹	Since 1987, WHO has periodically issued health-based air quality guidelines to assist governments and civil society to reduce human exposure to air pollution and its adverse effects. The WHO air quality guidelines published in 2006 provided health-based guideline levels for the major health-damaging air pollutants, including particulate matter (PM₁₀ and PM_{2.5}), ozone (O₃), nitrogen dioxide (NO₂) and sulphur dioxide (SO₂). These guidelines had a significant impact on pollution abatement policies all over the world and led to the first universal frame of reference. Following extensive research which started in 2016 and has referred to numerous epidemiological studies, WHO have reassessed their guideline values and recently (September 2021) provided updated values.
IAQM Indoor Air Quality Guidance (2021) ³⁰	The IAQM have provided guidance on the assessment of indoor air quality. This was published in September 2021 and covers assessment, monitoring, modelling and mitigation relating to indoor air quality.

Covid-19: Supplementary Guidance, Local Air Quality Management Reporting in 2021 ³¹	The guidance had been informed by responses from an impact survey received following the release of the interim statement on Covid-19 impacts to the LAQM regime. The guidance is to be read in conjunction with LAQM (TG22) ³¹ .
IAQM assessment of air quality impacts on designated nature conservation sites (2000) ³²	This guidance signposts the appropriate thresholds used by local authorities, the Environment Agency and other regulators to determine the potential for air quality damage on sensitive ecological sites. Should threshold be likely to be exceeded, a suitably qualified and experienced ecologist is required to determine whether there is likely to be a significant impact on the habitat.
Environmental Protection (EPUK)/Institute of Air Quality Management (IAQM) Land Use Planning & Development Control (2017) ³³	This guidance has been produced to ensure that air quality is adequately considered in the land use planning and development control processes by relevant officers within local authorities, developers, and consultants involved in the preparation of development proposals and planning applications. This document is best practice guidance and has no formal or legal status.

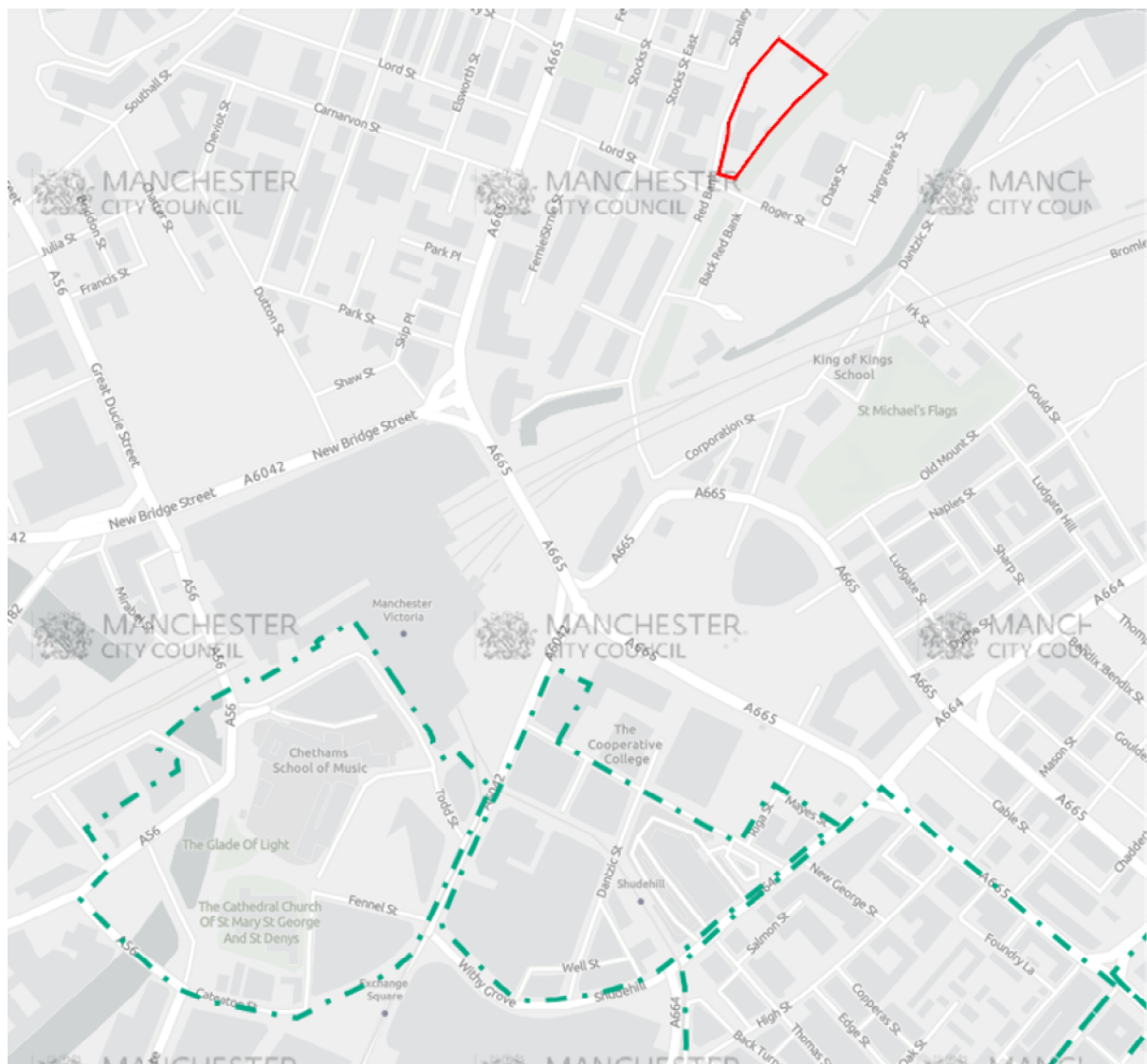
Appendix 5 – Baseline Noise Survey Locations



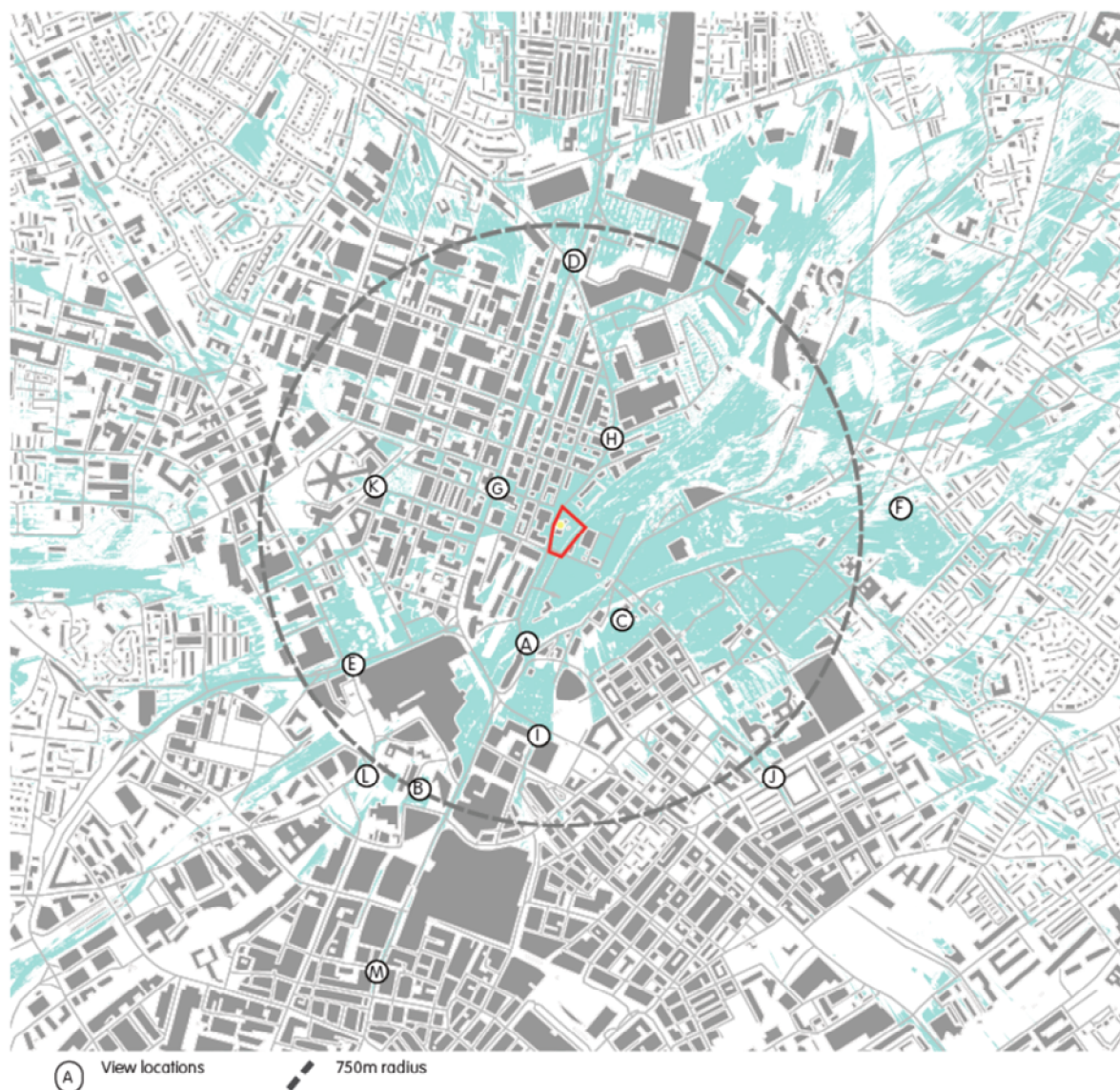
Appendix 6– Heritage Assets and TVIA Viewpoint Location



Location of listed buildings (blue markers) in relation to the Site (red outline) within a 500m study area. The historic former viaduct, identified as a non-designated heritage asset, is shown in yellow. Source: NHLE.



Location of Conservation Areas, Cathedral to the west and Shudehill to the east (both shown in dashed green outline) in relation to the Site (indicative boundary shown in red) to the north. Source: MCC Local Development Framework map.



ZTV and proposed viewpoint locations. Source: Re-Form.

Viewpoint Location Table:

Ref	Viewpoint Name	Heritage / TVIA	Wireline / Render
A	Junction of Red Bank and Scotland, looking north-east	TVIA	Render
B	Cathedral Gardens, looking north-east	TVIA	Wireline
C	St Michael's Flags & Angel Meadow Park, looking north-west	TVIA	Wireline
D	Junction of Cheetham Hill Road and Elizabeth Street, looking south	N/A	Wireline
E	Junction of Trinity Way and Ducie Street, looking north-east	Heritage & TVIA	Wireline
F	Collyhurst residential area, looking west	Heritage & TVIA	Wireline
G	Junction of Cheetham Hill Road and St Chad's, looking east	Heritage & TVIA	Render
H	Junction of Red Bank and Derby Street/Collingham Street, looking south	Heritage & TVIA	Render

I	Junction of Miller Street and Dantzic Street, looking north	Heritage & TVIA	Wireline
J	Junction of Oldham Road and Sheriff Street, looking north-west	Heritage & TVIA	Wireline
K	Junction of Southall Street and Lord Street, looking east	Heritage	Wireline
L	Victoria Street, adjacent to Chetham's College, looking north-east	Heritage	Wireline
M	Junction of Cross Street and Chatham Walks, looking north-east	Heritage	Wireline



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